

Illinois Street Reconstruction Project

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ENVIRONMENTAL ASSESSMENT

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By the

U.S. Department of Transportation

Federal Highway Administration

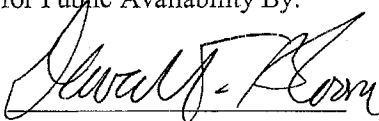
and

State of Alaska

Department of Transportation and Public Facilities:

Recommended for Public Availability By:

5/5/05



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The Department of Transportation and Public Facilities (DOT&PF) proposes to reconstruct Illinois Street in Fairbanks, Alaska. The project would construct a new bridge over the Chena River at Barnette Street, replace the existing Cushman Street Bridge and Noyes Slough Bridge, and provide a more aesthetically pleasing corridor that allows efficient traffic flow, new pedestrian facilities, upgraded streetlights and drainage.

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LIST OF ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ARRC	Alaska Railroad Corporation
CAAA	Clean Air Act Amendments
CEDS	Fairbanks North Star Borough Comprehensive Economic Development Study
CEQ	Council on Environmental Quality
CGP	Construction General Permit
CO	Carbon Monoxide
CPAC	Comprehensive Plan Advisory Committee
dBA	A-weighted Decibel
DNR	Department of Natural Resources
DOT&PF	Alaska Department of Transportation and Public Facilities (or Department)
EPA	U.S. Environmental Protection Agency
FAIR	Fairbanks Area-wide Reclamation
FCVB	Fairbanks Convention & Visitors Bureau
FE	Fairbanks Exploration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMATS	Fairbanks Metropolitan Area Transportation System
FNSB	Fairbanks North Star Borough
HABS	Historic American Building Survey
ISTEA	Intermodal Surface Transportation Efficiency Act
L RTP	Long Range Transportation Plan
MOU/MOA	Memorandum of Understanding/Memorandum of Agreement
MPH	Miles Per Hour
MSLUG	Minnie Street Land User Group
MS4	Municipal Separate Storm Sewer System
NAC	Noise Abatement Criteria
NC	Northern Commercial
NAAQS	National Ambient Air Quality Standards
NLUR	Northern Land Use Research
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System Permit
NRHP	National Register of Historic Places
OPAG	Older Persons Action Group
ppm	Parts Per Million
ROW	Right of Way
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
STIP	State Transportation Improvements Program
SWPPP	Stormwater Pollution Prevention Plan
TCP	Traffic Control Pattern
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compound

1 PROPOSED ACTION

The State of Alaska Department of Transportation and Public Facilities (DOT&PF) in cooperation with the Alaska Division Office of the Federal Highway Administration (FHWA) proposes to reconstruct Illinois and Barnette Streets in Downtown Fairbanks (Figure 1).

Barnette Street would remain a one-way southbound street with a new bridge crossing the Chena River extending Barnette Street to Doyon/Terminal Street. Barnette Street would have a 10 foot parking lane with pedestrian bulb-outs at the intersections along the west side from 7th to 1st Avenue (Figure 2). Between Barnette and Cushman Streets, 1st Avenue would become a two way street with eight-foot wide sidewalks. Barnette and Cushman Street intersections with 1st Avenue would become signalized with pedestrian push buttons.

The existing Cushman Street Bridge would be replaced with a new structure that meets current seismic standards and has an inviting 20-foot wide pedestrian path on the east side and a six-foot sidewalk on the west side. Illinois Street would be two lanes, one-way northbound from First Avenue to Doyon/Terminal Street. Sidewalks would narrow on the east side of Illinois to 17 feet wide between the north end of the new bridge and Doyon/Terminal Street.

Two bridge options are under consideration for both of the new Cushman and Barnette Street Bridges. The two-span continuous steel girder “haunch” style and a two-span decked bulb-tee girder style. Both can accommodate a pedestrian path on the north bank under the bridges that would connect to the existing Chena Riverfront Path (Figures 3 and 4).

A triangular open space would be created between the new Barnette Street Bridge and the replaced Cushman Street Bridge. The triangular space would be accessible from the Chena Riverfront Path and via sidewalks between both streets from the Doyon/Terminal Street intersection. DOT&PF would provide topsoil, seeding, and water and power service connections to this space. DOT&PF would retain ownership of this land and local community groups would be encouraged to landscape and maintain the triangular space in a manner that enhances the core downtown area of Fairbanks.

Between Doyon/Terminal and Minnie Street dedicated left turn lanes would be installed at all road intersections except Slater Street. Slater Street would be limited to right-turn-only entrance

and exit maneuvers at the intersection with Illinois Street. Minnie Street would be widened to provide westbound dual left turns onto Illinois Street.

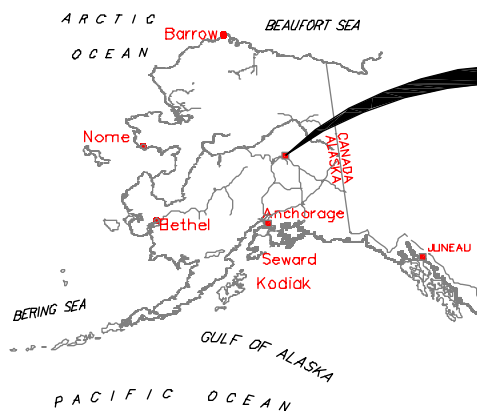
From Doyon/Terminal Street north to College Road, a six-foot wide sidewalk with curb and gutter would be constructed along the west side of Illinois Street. A 10-foot pedestrian path with curb and gutter would be installed on the east side, except for a short stretch between Minnie Street and the Monroe Catholic School where the pedestrian path would be eight feet wide.

Between Minnie Street and College Road the one lane southbound, one lane northbound and two way left turn lane would remain. As stated above, new pedestrian facilities would be added on both sides. A new bridge would replace the existing Noyes Slough Bridge. At College Road, an additional northbound left turn lane would be constructed.

Throughout the corridor a new storm drainage system with mechanical separators for pollutants would be installed.

The proposed action would:

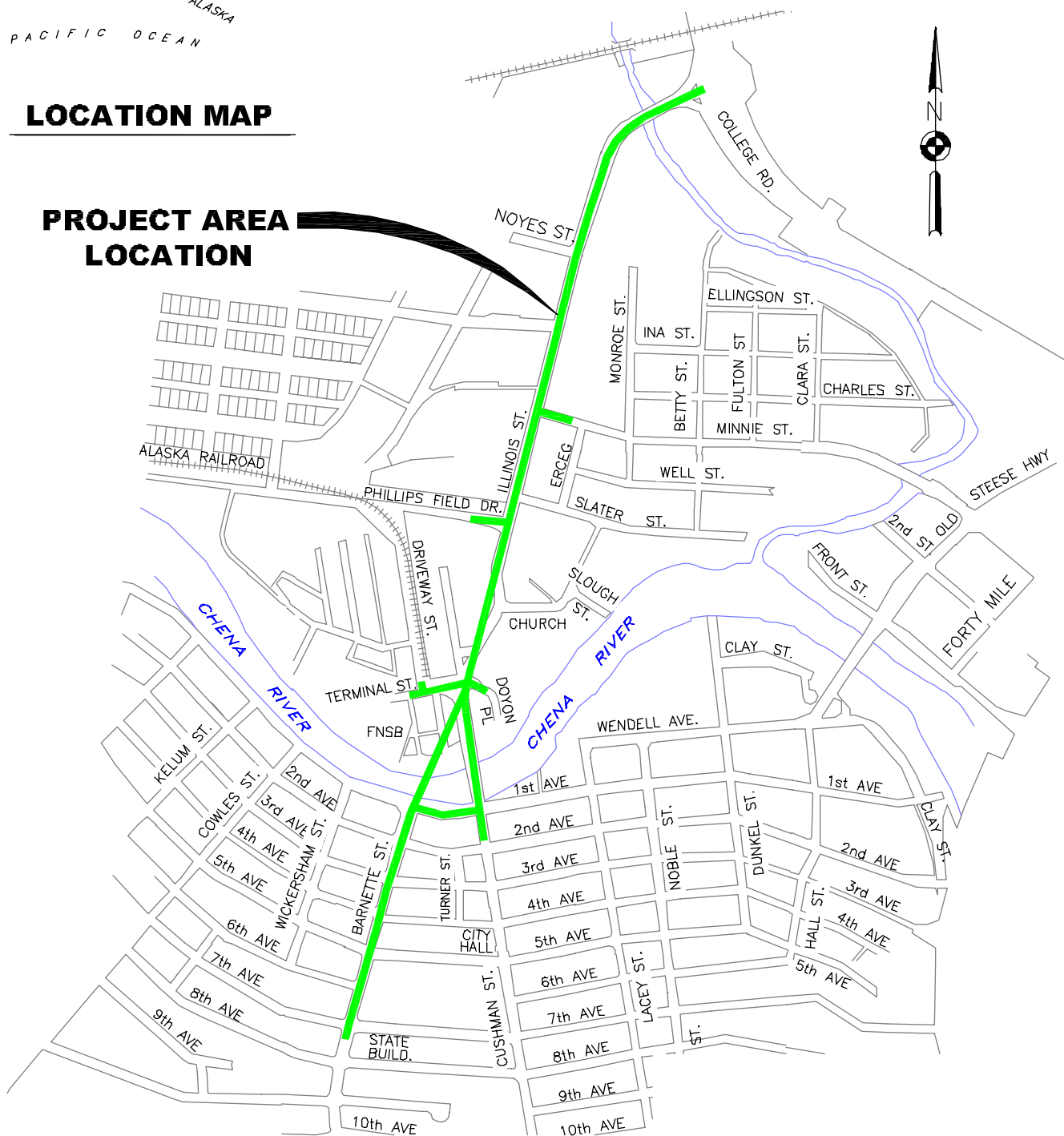
- Provide a more aesthetically pleasing corridor
- Create efficient traffic flow for vehicles
- Improve pedestrian facilities and safety along Barnette and Illinois Streets
- Upgrade streetlights
- Improve drainage
- Provide sufficient capacity to safely handle the traffic demands for both motorized and non-motorized users through the design year of this project (2035)



FAIRBANKS

LOCATION MAP

PROJECT AREA LOCATION



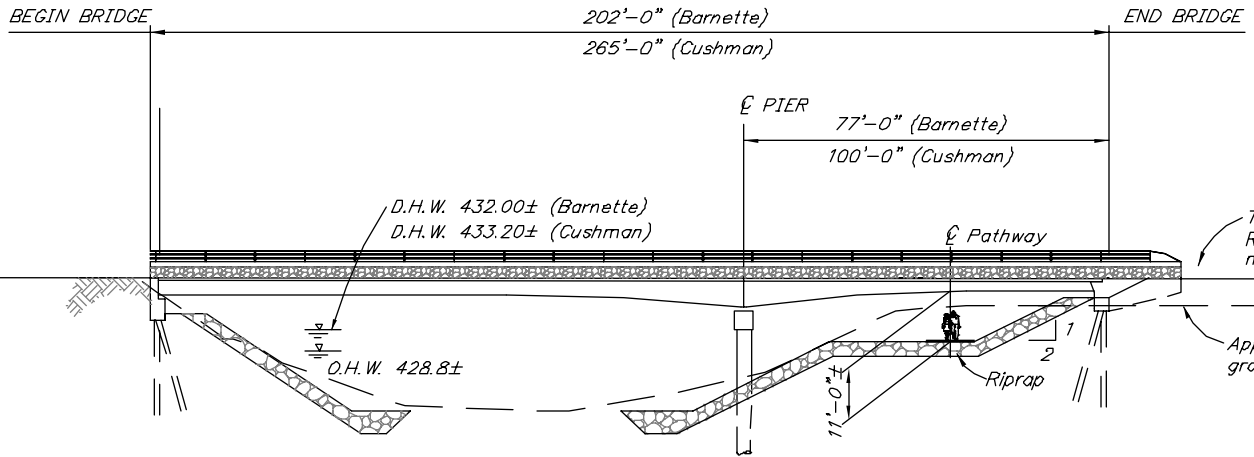
**ILLINOIS STREET RECONSTRUCTION PROJECT
VICINITY MAP**

APRIL 2005

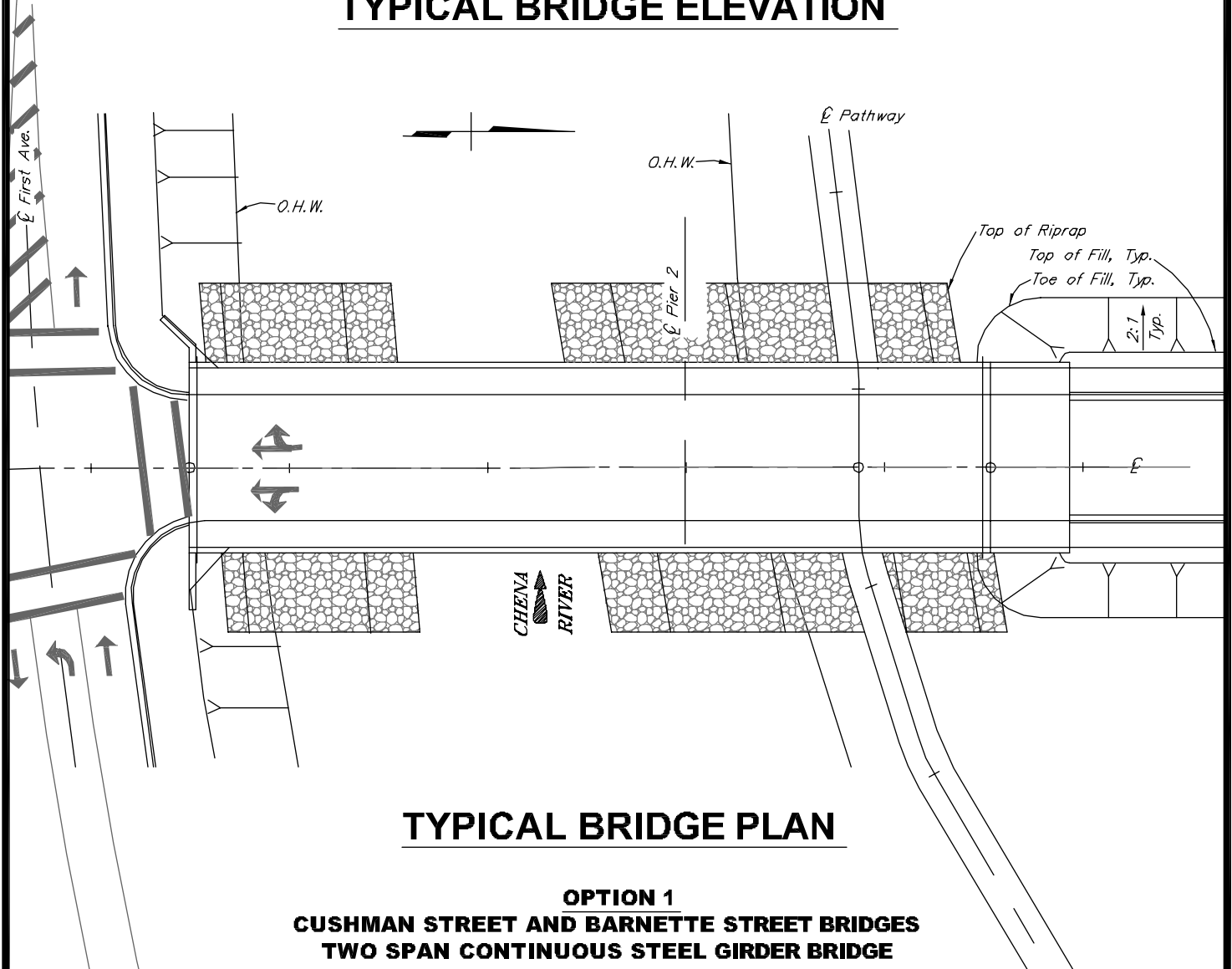
FIGURE 1



ILLINOIS STREET RECONSTRUCTION PROJECT
PREFERRED ALTERNATIVE
APRIL 2005
FIGURE 2



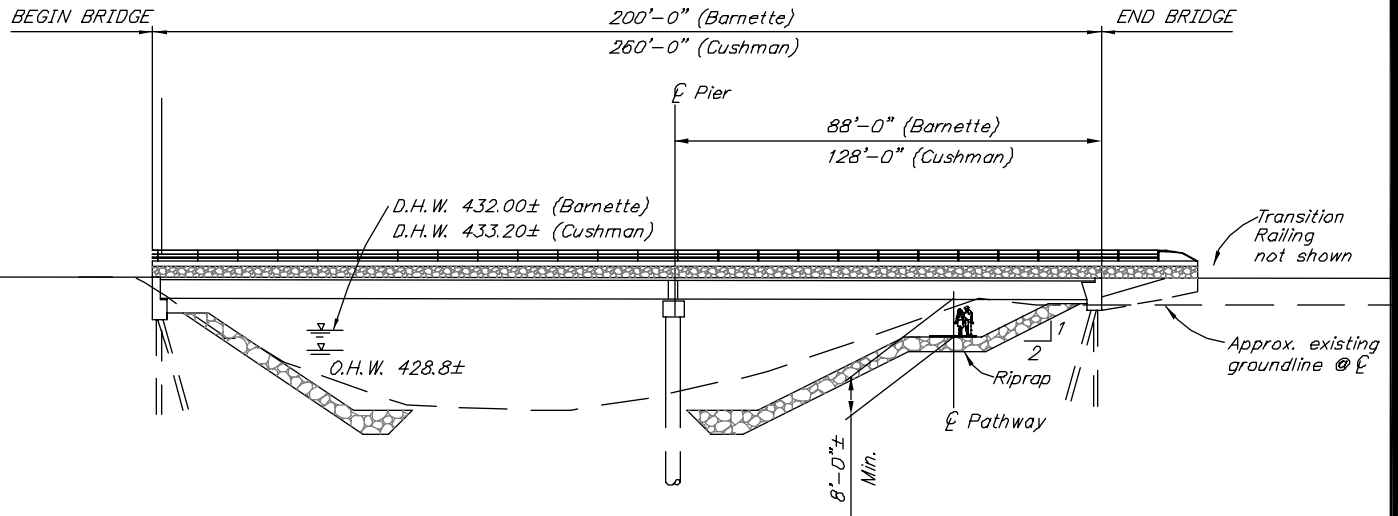
TYPICAL BRIDGE ELEVATION



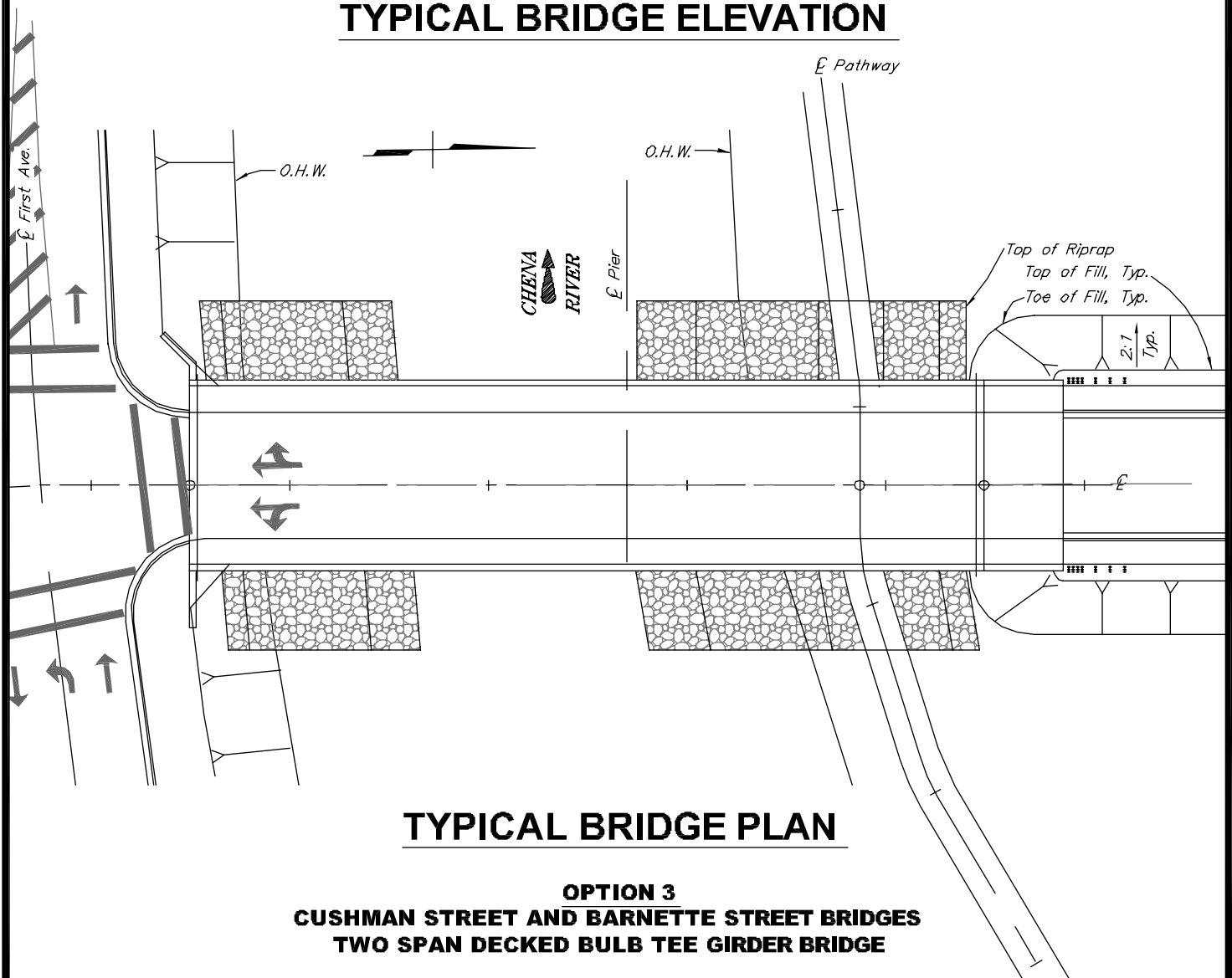
ILLINOIS STREET RECONSTRUCTION PROJECT
CHENA RIVER BRIDGES
OPTION 1

APRIL 2005

FIGURE 3



TYPICAL BRIDGE ELEVATION



TYPICAL BRIDGE PLAN

OPTION 3
CUSHMAN STREET AND BARNETTE STREET BRIDGES
TWO SPAN DECKED BULB TEE GIRDER BRIDGE

ILLINOIS STREET RECONSTRUCTION PROJECT
CHENA RIVER BRIDGES
OPTION 3

APRIL 2005

FIGURE 4

2 PURPOSE AND NEED

2.1 PURPOSE

The purpose of the proposed project is to improve pedestrian and motorist safety, appearance and vehicle access to and from downtown Fairbanks. The Illinois Street corridor is the primary north-south connector between the heart of downtown Fairbanks and surrounding areas. Illinois Street at 1st Avenue and the Cushman Street Bridge play a key role in the City's economic well-being and quality of life.

2.2 NEED

The Illinois Street corridor in downtown Fairbanks serves not only as a transportation corridor but is also the location of community activities. The Cushman Street Bridge is vitally important to the community of Fairbanks and is a narrow, but well used pathway for pedestrians and tourists. Volunteer groups provide floral baskets every summer to beautify downtown, and the bridge is adorned with flags from all 50 states. It serves as a focal point for community events. In the winter people gather on the bridge to view the start and finish of the Yukon Quest sled dog race. The bridge is also the location of the start and finish of the Sonot Kkaazoot Cross Country Ski Race. In summer, the bridge is used for viewing Golden Days events, which include the Rubber Ducky race, canoe and kayak races, and other downtown activities. Also, events associated with the Midnight Sun Festival in June take place in the Golden Heart Plaza nearby, which heavily increases pedestrian use of the bridge as people park on the north side of the Chena River and walk across the bridge to view and participate in activities.

Large-scale tour companies drop off tour passengers in downtown Fairbanks. Tourists have the opportunity to explore Downtown Fairbanks through various city tours. These include guided and self-guided walking tours of historic Fairbanks that leave from the Fairbanks Convention and Visitor's Bureau (FCVB) log cabin. Tourists not associated with organized downtown tours walk the project corridor in search of food, gifts, photo opportunities, or just for leisure. The FCVB is located at the corner of Cushman Street and 1st Avenue. Since 1999, the Visitor's Bureau has averaged about 21,700 visitors in tour groups and approximately 74,700 individual travelers each year (Personal communication, FCVB, February 24, 2005). Several hotels and tourism-oriented businesses are located nearby. The new State Courthouse is just upstream surrounded by Griffin Park. Griffin Park is a community open space. Golden Heart Plaza is a focal point of downtown (Figure 13).

The William Ransom Wood Centennial Footbridge was constructed just upstream two years ago. The footbridge provides needed pedestrian access between Golden Heart Plaza and open space on the north side of the river.

Variations of this project have been in the planning stages for over 25 years. Local government bodies have passed resolutions urging DOT&PF to move forward with the project:

- Chena Riverfront Commission 2005-2, 3/7/05
- City of Fairbanks Ordinance 5494, 7/22/02
- Fairbanks North Star Borough (FNSB) Resolution 2002-61, 8/22/02
- Main Street Fairbanks Resolution 2002-1, 8/14/02
- City of Fairbanks Resolution 4014, 7/15/02
- Chena Riverfront Commission Resolution, 2/7/00
- City of Fairbanks Engineering Department letter, 3/18/97
- FNSB Resolution 93-013, 1/28/93
- City of Fairbanks Resolution 3325, 5/18/92
- City of Fairbanks Resolution 1488, 7/10/78

The Mayor of Fairbanks, Steve Thompson, and the FNSB Mayor, Jim Whitaker, concurred with the Chena Riverfront Commission's recommendations, stating that the bridges would be a wonderful improvement to the downtown area in respective letters dated March 8, and March 16, 2005.

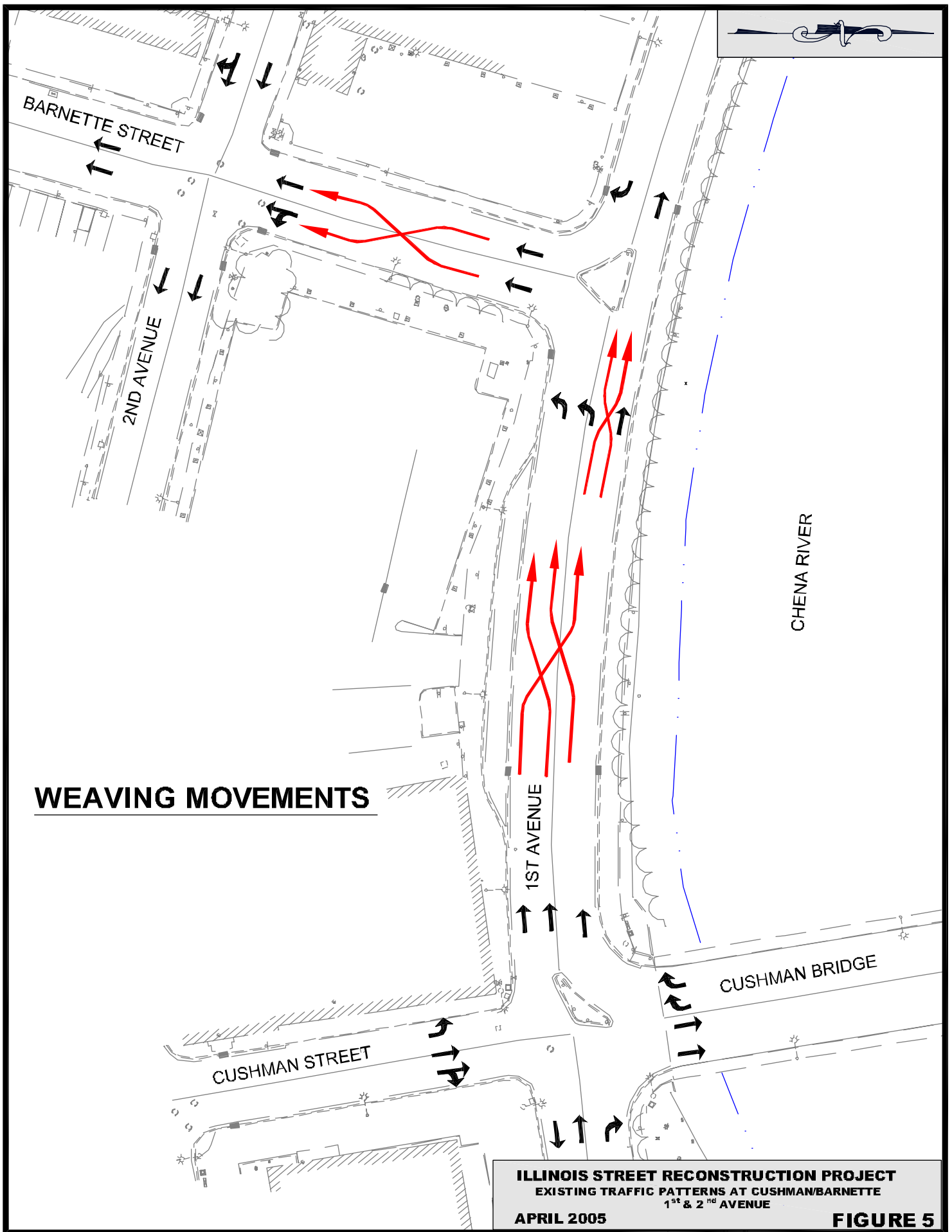
2.2.1 Safety

The existing lane configurations throughout the corridor can be confusing to motorists. Unexpected and non-standard traffic patterns exist. Between 2nd Avenue and 1st Avenue, Barnette Street is a one-way, two-lane facility (at 1st Avenue, Barnette is striped for three lane widths and tapers down to two lanes at 2nd Avenue). Because of the arrangement of one-way streets that cross Barnette, traffic moving east from 1st Avenue must merge and weave to the easterly most southbound lane in one block before continuing east on 2nd Avenue. 1st Avenue between Cushman and Barnette is one-way, westbound. Traffic coming off the Cushman Bridge southbound from the right (outside) lane wishing to continue south on Barnette must cross one complete lane in one block to make a left onto Barnette Street from 1st Avenue. Traffic coming

off the Cushman Bridge southbound from the left (inside) lane may stay in the center lane to continue south onto Barnette Street, but must navigate a tight turn (about 20 feet as painted from white line to lip of gutter) at the 1st Avenue/Barnette intersection or cross into the left (outside) lane for a dedicated left turn movement (Figure 5).

From 1995-1999 there were 120 accidents at the 1st Avenue/Cushman Street intersection and 13 accidents at 2nd Avenue & Barnette Street. Confusing travel patterns are a likely contributing factor to these accidents (Kinney, Accident Analysis Report, 2004).

At 2nd Avenue & Barnette Street, the approach view time for vehicles stopped on 2nd Avenue to vehicles traveling southbound on Barnette Street is 6.8 seconds. Approach view time is the amount of time a stopped vehicle has to judge approaching vehicles and cross a road safely. It takes vehicles 7.3 seconds to safely cross Barnette from a stopped position on 2nd Avenue. Delays at this intersection may cause drivers to take additional risks while entering Barnette Street. This risk factor, coupled with insufficient approach view time, is a likely factor in accidents at this intersection.



The following table shows accident data for intersections that are higher than the statewide average accident rate for similar facilities.

Table 1: Accident Data for Specific Intersections (1995-1999)

<i>Accident Type</i>	Barnette & 4 th Ave	Barnette & 2 nd Ave	Cushman & 1 st Ave	Total
Obstacle	1	2	10	13
Pedestrian	1*	-	3	4
Sideswipe	2	1	7	10
Rear end	-	-	43	43
Angle	5	10	52	67
HO	1	-	1	2
O/U	-	-	4	4
Total	10	13	120	143

Source: Kinney, Accident Analysis Report 2004

*Collision with pedacycle (bicycle)

HO = Head On Collision; O/U = Other/Unkown

Intersection accident rates for the 4th Ave/Barnette and 2nd Ave/Barnette intersections are higher than the statewide average rate for similar facilities. The intersection accident rate at the 1st Avenue and Cushman Street intersection is three times the statewide average. The accident rate at this intersection was 3.15 accidents per million entering vehicles from 1995 to 1999. The statewide average accident rate for similar intersections is 1.05 accidents per million entering vehicles.

North of the Chena River, the following road segments and intersections exhibit safety concerns:

- Sight distance is obstructed at Church Street. The sight distance for left turning traffic at Church Street is about 280 feet, which is less than the 390 feet recommended for a 35 mile per hour (mph) facility. Five accidents occurred here from 1995 to 1999.
- The segment accident rate on Illinois Street between Charles Street and College Road is more than one-and-a-half times the statewide average. The accident rate at this location is 2.74 per million entering vehicles, compared to the statewide average of 1.60 per million entering vehicles for this type of roadway segment.

Obstacles along Illinois Street include:

- A power pole located by Photo Factory with “bites” removed by passing vehicles. It has been knocked over and sleeved.

- Pipe bollard at Senco Fasteners, Phillips Field Road and Illinois Street, which guards Senco Fasteners from vehicles colliding with the building.

Since the Accident Analysis Report, accidents along Barnette, Cushman, and Illinois Streets have continued. From January 1 to March 4, 2005 Fairbanks Police Dispatch Reports, which show accident date and location, list six accidents at 1st Avenue and Cushman Street. A noteworthy accident occurred on April 6, 2004. A Fairbanks woman, with two children on board, crashed through the Cushman Street Bridge rail while towing a trailer and dove off the Cushman Street Bridge. Miraculously, no one was injured in this accident.

2.2.2 Deficiencies

Pedestrian and Bicycle Facility Deficiencies

The existing project corridor does not connect pedestrian and bicycle paths from Downtown Fairbanks north to existing paths along College Road and Johansen Expressway (Figure 6).

Barnette Street from 7th Avenue to 1st Avenue:

- Curb ramps do not meet current desirable standards for ADA ramps except on the east side of Barnette Street at 3rd Avenue.
- Examples of existing deficiencies include: Lack of landings at the top of ramps; utility structures (such as junction boxes, inlet grades, and power poles) are obstructions in the ramp; lips at the bottom of the ramps; many of the ramps are steeper than the recommended 12:1 grade; and, lack of a tactile warning surface that would warn people with no or limited sight that they are about to walk into the intersection.

Cushman Street from 1st Avenue to Doyon Place/Terminal Street:

- Existing sidewalks on the Cushman Street Bridge are only six feet wide. This is too narrow for pedestrians and bicycles at the same time.
- There are no bicycle facilities along this section.
- The existing Chena River multi-use path ends at the narrow sidewalk along Cushman Street on the north side of the river.
- During spectator events on the Chena River, the sidewalk on the Cushman Street Bridge is much too narrow to accommodate large groups of viewers.

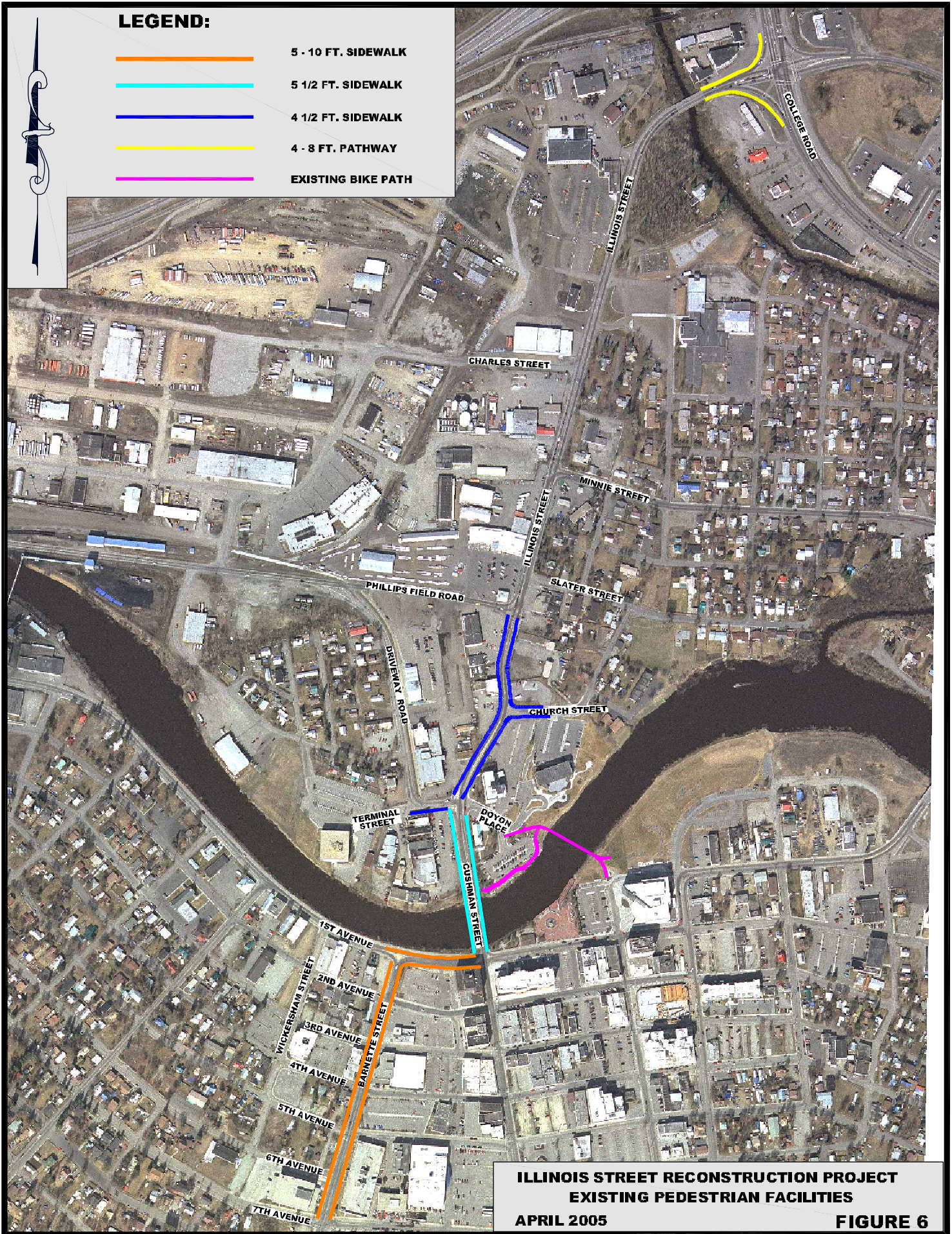
Illinois Street from Doyon Place/Terminal Street to College Road:

- There are no pedestrian signals at the Minnie Street and Illinois Street intersection.
- No pedestrian or bicycle facilities exist north of Phillips Field Road.

Illinois Street borders the Slaterville neighborhood, Monroe Catholic School, and the Illinois Street Historic District. In the summer, large numbers of visitors as well as local residents attempt to walk in this area.

LEGEND:

- 5 - 10 FT. SIDEWALK
- 5 1/2 FT. SIDEWALK
- 4 1/2 FT. SIDEWALK
- 4 - 8 FT. PATHWAY
- EXISTING BIKE PATH



Roadway Deficiencies

Lane configurations throughout the corridor are unconventional and can be confusing to the non-commuter. In addition to the difficult traffic patterns between Cushman/Barnette/1st and 2nd Avenue, motorists traveling southbound on Illinois Street must change lanes at Minnie Street to remain in the through lane to 1st Avenue. As traffic increases, lane changing difficulty increases, especially for visitors unfamiliar with the area.

Drainage

On Illinois Street, curb and gutter drainage is only present from the Cushman Street Bridge to Phillips Field Road on the eastside and to Terminal Street on the west side of the street. North of this area, stormwater flows off the road surface to the surrounding lots, which causes flooding. A large portion of the stormwater from Phillips Field Road north eventually percolates into the ground. The Chena River and Noyes Slough are designated 303(d) impaired water bodies by the Alaska Department of Environmental Conservation (ADEC) due to pollution from sediment, hydrocarbons, oil, and grease. These pollutants are common constituents of urban runoff.

Surfacing

The existing road surfaces are in poor condition and exhibit large cracks. The cracks allow water to enter the roadbed, which further damages the pavement structure. Potholes and other hazards for drivers result from the water expanding and contracting through freeze-thaw cycles common to the area's climate. DOT&PF placed an E-Chip seal coat on the roadway in 2003. Because of the uneven road surface, much of the seal continues to be scraped off by snow removal and plowing in the winters.

2.2.3 Access

Many of the intersections along both Illinois and Barnette Streets currently have long delays during peak traffic flows. For unsignalized intersections, DOT&PF considers 25-50 seconds of delay unacceptable, and more than 50 seconds of delay is a failing intersection. Signalized intersections with more than 80 seconds of delay are unacceptable. In the following tables, cells in bold depict delay for intersection movements that are unacceptable or failing for 2000 and 2035 peak hour conditions.

Table 2: Barnette Street Intersection Delay

<i>Barnette Intersection</i>	2000		2035	
	Westbound Approach	Eastbound Approach	Westbound Approach	Eastbound Approach
Delay (seconds)				
2 nd Avenue	-	69	-	56
4 th Avenue	-	22	-	43

- Indicates no approach at this location

Source: Kinney, Capacity Analysis Report, 2004.

Table 3: Cushman/Illinois Intersection Delay

<i>Cushman/Illinois Unsignalized Intersections</i>	2000		2035	
	Westbound Approach	Eastbound Approach	Westbound Approach	Eastbound Approach
Delay (seconds)				
Terminal/Doyon	>120	54	>120	>120
Church Street	36	-	>120	-
Charles Street	-	26	-	49
<i>Cushman/Illinois Signalized Intersection</i>	Delay			
College Road	32		50	

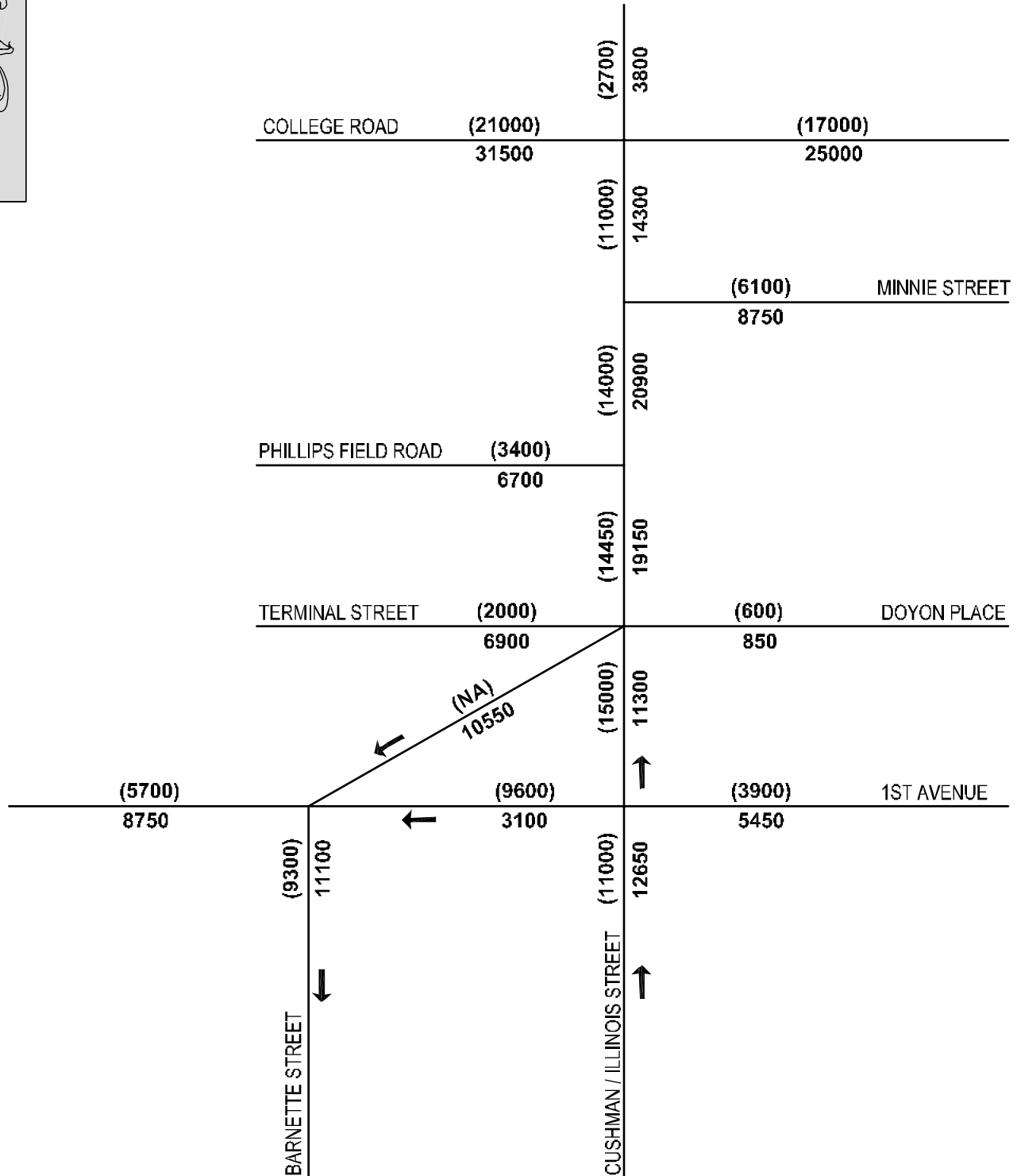
- Indicates no approach at this location

Source: Kinney, Capacity Analysis Report, 2004.

The capacity of the present facility is inadequate for existing peak hour traffic at all of the cross-street unsignalized intersections along Illinois Street. The unimproved facility's capacity would remain inadequate for the design year (2035) for peak hour traffic at these intersections. The lines of cars waiting at these intersections become excessive and effect upstream operations or block ingress and egress at minor cross-streets, further deteriorating capacity at signalized intersections (Kinney, Capacity Analysis Report, 2004). Traffic volumes are expected to increase through 2035. Figure 7 shows current and future annual average daily traffic numbers.

Additional peak hour capacity issues for the project corridor include:

- The northbound queue on Illinois Street at the Phillips Field Road intersection backs into and blocks Church Street (2000 and 2035).
- The westbound left queue blocks right turn land access at Minnie Street (2035).



LEGEND:

(8700) 2000 AADT's
5700 2035 AADT's WITH BARNETTE BRIDGE

ILLINOIS STREET RECONSTRUCTION PROJECT
CURRENT AND FUTURE
ANNUAL AVERAGE DAILY TRAFFIC NUMBERS (AADT)
APRIL 2005

FIGURE 7

3 ALTERNATIVES

Four Build Alternatives were evaluated for their ability to improve safety, correct roadway deficiencies, and improve vehicle and pedestrian access to and from downtown Fairbanks.

DOT&PF presented these alternatives and discussed them with the public. The following table is a summary of this evaluation and comparison to the Preferred Alternative.

Table 4: Build Alternative Evaluation

	Dismissed Alternatives			Preferred Alternative
	Phillips Field/Driveway	Wickersham	Driveway Loop	
Improve road & street drainage	X	X	X	X
Efficient traffic flow for vehicles		X	X	X
Fewest Right of Way (ROW) impacts				X
Rehabilitate pavement & road structure	X	X	X	X
No removal of the Alaska Railroad Corporation railroad spur required				X
City of Fairbanks resolution in favor of project				X
FNSB resolution in favor of project				X
No impacts to known archeological resources	X		X	X
No impacts to Wickersham residential neighborhood	X		X	X
Improve pedestrian facilities along Illinois Street	X	X	X	X
Improve pedestrian facilities along Barnette Street	X		X	X
Improve pedestrian and vehicle safety of project area	X	X	X	X
Provide landscaping and beautification opportunities	X	X	X	X
Provide an attractive gateway to downtown Fairbanks	X		X	X

The Preferred, Phillips Field/Driveway and Driveway Loop Alternatives have the same geometry south of 1st Avenue. All four alternatives have the same geometry along Illinois Street north of Slater Street.

3.1 NO BUILD ALTERNATIVE

Under this alternative, no improvements would be made to the Illinois/Barnette project corridor area. The Department would continue routine maintenance of the existing facility through the design year of the project, 2035.

The No Build alternative would not correct safety problems along the route, and accidents would continue to occur and even increase as traffic volumes increase. Except for the sidewalks on the east side of Barnette at 3rd Avenue, existing pedestrian facilities do not meet desirable ADA criteria for curb ramps. There are no pedestrian facilities north of Slater Street. The No Build alternative would leave the Monroe Catholic School and Slaterville neighborhoods without adequate pedestrian access to downtown Fairbanks. Tourists and the general public would continue to walk in the street between Slater and Minnie Street. This alternative would not improve the confusing lane configurations, and intersections would not be improved to increase safety.

The No Build alternative would not improve drainage in the area, and untreated urban runoff would continue to flow into the Chena River and Noyes Slough. These rivers are designated impaired water bodies for certain pollutants, and efforts are being made to reduce pollutants entering them.

Currently, the Illinois and Barnette Street corridor has:

- Crumbling concrete curb & gutter
- Narrow, substandard, or non-existent sidewalks
- Substandard street lighting
- Confusing lane configurations

As traffic volumes increase, congestion will increase. Increased congestion and delay may deter people from using Illinois Street for travel to downtown Fairbanks. As motorists look for alternate routes to reach the Downtown Core, businesses within the project corridor would be negatively impacted.

Eventually, routine maintenance would not be able to keep up with the deterioration of the facility. The physical integrity of the existing facility would decline as the pavement and substructure fails. However, the No Build is a viable alternative.

3.2 ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION

DOT&PF presented these alternatives and discussed them with the public at public meetings:

- July 10, 2002 at Monroe High School
- December 9, 2002 at Monroe High School
- September 14, 2004 at Noel Wien Library

These alternatives were dismissed because the Preferred Alternative better met the purpose and need.

3.2.1 Phillips Field/Driveway Alternative

This alternative is the same as the Preferred Alternative south of 1st Avenue.

The Cushman Street Bridge would have two traffic lanes, improved pedestrian walkways and a shoulder/bike lane on the east side. The Barnette Street Bridge would have two lanes for southbound traffic, sidewalks on each side and a shoulder/bike lane on the west side (Figure 8).

Continuing up Illinois Street, the existing curve near Church Street would be eliminated. The road would be divided by a central median preventing left turns, except at Church Street. At Terminal Street and Doyon Place the road would split. The southbound one-way traffic would continue across the Chena River on a new Barnette Street Bridge. Northbound traffic would leave downtown via a new Cushman Street Bridge.

Phillips Field Road would be re-aligned to intersect with Illinois Street opposite Church Street, creating a four-way intersection. The existing Phillips Field Road, from the point of realignment east, would be obliterated.

Driveway Street would be re-aligned to intersect with Phillips Field Road at a ninety-degree angle far enough west so as not to interfere with the turn lane queues of the Illinois Street intersection.

Between College Road and Slater Street the lane configuration would be the same as the Preferred Alternative. At Minnie Street there would be two traffic lanes in each direction to Slater Street. From Slater Street to the Terminal Street/Doyon Place intersection, a center median

would be installed; there would be two through lanes in each direction, with left turn pockets provided at each of the intersections.

The Department dismissed this alternative from further consideration for the following reasons:

- This alternative has a counter intuitive traffic flow pattern and would require out of direction travel to reach certain destinations. For example, the southbound turning movement from Doyon Place is eliminated. These adverse travel patterns would impact travelers given the locations of the FNSB building on Terminal Street, and the Doyon Building, Denali State Bank and Immaculate Conception Church on Doyon Place.
- This alternative would negatively impact air quality by requiring vehicles to stop at a number of intersections as they make out of direction trips.
- This alternative would involve the removal of a railroad spur.
- This alternative would not minimize wetland and riverine impacts over the Preferred Alternative.
- The cost of right of way required for this alternative was estimated at \$4 million, which is \$1.6 million more than the Preferred Alternative.



**ILLINOIS STREET RECONSTRUCTION PROJECT
PHILLIPS FIELD/DRIVEWAY ALTERNATIVE**

APRIL 2005

FIGURE 8

3.2.2 Wickersham Alternative

During the preliminary design phase of this project, public comment from the Fairbanks community stated Wickersham Street was the western boundary of the Fairbanks Downtown Core area. This comment led the to the development of an alternative with a main throughway along the west edge of downtown, with intent to define the core downtown area.

Barnette Street would become a two-way street. It would have two 12-foot through lanes with a 10-foot parking lane on each side and six to eight-foot wide sidewalks (Figure 9).

From 10th Avenue, Wickersham Street would curve to match the new alignment at 6th Avenue. Wickersham Street would become a two-lane, one-way street with sidewalks on both sides and a shoulder/bike lane on the west side. Wickersham Street would continue north via a new bridge over the Chena River and connect to a realigned Driveway Street.

From 1st Avenue across the Cushman Street Bridge to the Phillips Field Road intersection, Illinois Street would become a one-way traffic, northbound route. There would be two through lanes and turning lanes at the Doyon Place and Church Street intersections. Pedestrian walkways and a shoulder/bike lane would be developed on the Cushman Street Bridge and continued along Illinois Street.

Southbound traffic would be routed along a realigned Driveway Street, which would intersect Illinois Street close to the current Phillips Field intersection. Driveway Street would have two-way traffic until the new Phillips Field Road intersection, after which it would support only one-way, southbound traffic.

From Slater Street to College Road, this concept has the same design as described in both alternatives above. The major changes in alignment and traffic flow occur from the Phillips Field Road intersection south.

The Department did not select the Wickersham Alternative for the following reasons:

- This alternative's Right of Way impacts were estimated at \$4.3 million, the highest cost of all alternatives.

- The Wickersham Alternative would require acquisitions from 95 properties, including the railroad spur and the old train depot.
- This alternative would not minimize wetland and riverine impacts over the Preferred Alternative.



**ILLINOIS STREET RECONSTRUCTION PROJECT
WICKERSHAM ALTERNATIVE**

APRIL 2005

FIGURE 9

3.2.3 Driveway Loop Alternative

The proposed design for Barnette Street from 7th to 1st Avenue is as described for the Phillips Field/Driveway Alternative and the Preferred Alternative. As with the Wickersham alternative, from 1st Avenue across the Cushman Street Bridge to Phillips Field Road, Illinois Street becomes a one-way traffic, northbound route. Pedestrian walkways and a shoulder/bike lane would be developed on the Cushman Street Bridge and continued along Illinois Street. South Driveway Street would be realigned to cross the Chena River on a new bridge to link with Barnette Street on the south side of the river (Figure 10).

Traffic moving south towards downtown would be routed along a realigned South Driveway Street, which would intersect Illinois Street close to the current Phillips Field Road intersection. Driveway Street would have two-way traffic until the new Phillips Field Road intersection, after which it would support only one-way, southbound traffic.

The major changes in alignment and traffic flow occur from the Phillips Field Road intersection south. From Slater Street to College Road, this alternative has the same design as the Preferred Alternative and Phillips Field/Driveway Alternative.

The Department dismissed this alternative for the following reasons:

- It would require the removal of a railroad spur and the old train depot.
- RIGHT OF WAY estimates for this alternative are \$4.1 million dollars, the second highest of any of the alternatives and \$1.7 million more than the Preferred Alternative.
- This alternative would not reduce wetland and riverine impacts over the Preferred Alternative.
- It would require the acquisition of the Big I.



**ILLINOIS STREET RECONSTRUCTION PROJECT
DRIVEWAY LOOP ALTERNATIVE**

APRIL 2005

FIGURE 10

3.3 PREFERRED ALTERNATIVE

Barnette Street would be a one-way, southbound street with a new bridge crossing the Chena River (Figures 3 & 4). Traffic would move south in two 12-foot through lanes. This alternative creates a 10-foot parking lane and pedestrian bulb-outs at the intersections along the west side from 7th to 1st Avenue. Curb bulb-outs (extensions) are placed at intersections, which narrow the street to provide visual distinction and reduce pedestrian crossing distances. Bulb-outs provide a visual signal to drivers that a crossing is approaching, thus slowing traffic. They make waiting pedestrians more visible and distinguish parallel parking areas. This alternative includes 11-foot sidewalks along the east side and eight-foot sidewalks along the west side of Barnette Street from 7th Avenue to 1st Avenue (Figure 2).

The existing Cushman Street Bridge would be replaced. From 1st Avenue north to the Doyon Place/Terminal Street intersection, Illinois Street would have two lanes of one-way, northbound through traffic.

This alternative creates a triangular open space between the new Barnette Street Bridge and replaced Cushman Bridge.

From the new Doyon Place/Terminal Street intersection to Phillips Field Road, the Preferred Alternative would create four lanes of traffic, two lanes for northbound traffic and two lanes for southbound traffic. This alternative includes left turn pockets at the Doyon Place/Terminal Street intersection and at Church Street and Phillips Field Road intersections.

Between Doyon/Terminal and Minnie Street, the Preferred Alternative would create two southbound traffic lanes, two northbound through lanes, and dedicated left turn lanes at all road intersections except for Slater Street. This alternative would close off the existing driveway extension to the property housing OK Lumber and create a new driveway to the south of the Minnie Street intersection. This driveway would be limited to right-turn-only entrance and exit maneuvers. The Preferred Alternative would create an island separating north and southbound traffic from the Phillips Field Road intersection north to Minnie Street, limiting Slater Street to right-turn-only entrance and exit maneuvers. This alternative would widen Minnie Street at Illinois Street to provide dual left turns from Minnie Street onto Illinois Street.

The Preferred Alternative would construct Illinois Street between Doyon Place/Terminal Street and College Road with curb and gutter, eight-foot sidewalks on the west side, and 10-foot sidewalks on the east side. The exception is a short stretch between Minnie Street and the Monroe Catholic School where eight-foot sidewalks would be installed.

The Preferred Alternative would create three lanes (two through lanes and one two-way-left-turn lane) on Illinois Street between Minnie Street and the Noyes Slough. The Preferred Alternative includes the construction of a new bridge at Noyes Slough. The existing curve on Illinois would be flattened to meet desirable horizontal curve criteria.

Ending at College Road, the Preferred Alternative would add a left turn lane to provide dual left turn lanes from Illinois Street onto College Road.

The preferred alternative:

- Creates efficient traffic flow for vehicles
- Improves pedestrian access along Barnette and Illinois
- Upgrades streetlights
- Improves drainage
- Provides an aesthetically pleasing corridor
- Constructs bridges to current standards

The Department has selected this as the Preferred Alternative because it minimizes impacts to:

- Historic properties
- Right of way

And benefits:

- Safety
- Water quality
- Air quality
- The social and economic environment

3.4 CHENA RIVER BRIDGE DESIGN OPTIONS

Preliminary bridge options for the Barnette and Cushman Street Bridges have been developed. The distance between the bridges (measured from bridges and river centerlines) would be about 290 feet. Two bridges, one bridge that carries Barnette Street and one bridge that carries Cushman Street across the Chena, are necessary to eliminate confusing lane configurations and improve safety. DOT&PF will address riprap, fill, and dredge activities associated with Section 404 Permitting upon selection of a bridge option. All preliminary options include a concrete bridge rail with top mounted hand railing.

Table 5: Chena River Bridge Options

Option	Type	Pedestrian Path	Pier(s)	Cost
1	Haunch	Path with 10ft vertical clearance under water 2wks/avg year	1	Barnette \$2,500,000 Cushman \$4,500,000 Total: \$7,000,000
2	Box Girder	No Path	0	Barnette \$2,750,000 Cushman \$5,750,000 Total: \$8,500,000
3	Bulb-tee	Path with 8ft vertical clearance under water 2wks/avg year	1	Barnette \$1,500,000 Cushman \$2,500,000 Total: \$4,000,000

The two span “haunch” bridges, Option 1, provide adequate vertical clearance for the proposed future pathway. A single pier, comparable in location to the William Ransom Wood Centennial Footbridge pier located 1,000 feet upstream, is located just inside the edge of the water on the north end of the bridges. The proposed pier position helps to balance bridge span lengths while maximizing the navigable portion of the river. Available navigation width for the Chena River would be 95 feet for the Barnette Bridge and 120 feet for the Cushman Bridge. The two “haunch” bridges would require about 20 feet of bank riprap on each side of the bridge, for an approximate total riprap width of 88 feet. The combined cost of the two “haunch” bridges is about \$3,000,000 more than the two bulb-tee bridges. However, the “haunch” bridges are visually superior and would fit well with the existing visual setting of downtown Fairbanks.

The clear span steel box girder “no pier” bridges would not accommodate the proposed pathway under the bridges, and they would restrict navigation during high flow periods. This option is \$4.5 million more than the two bulb-tee bridges.

Option 3, the two bulb-tee bridges, is the least-cost option. The bulb-tee bridges would accommodate the proposed pathway if a design exception were granted for eight-foot vertical clearance. The pathway would be underwater about two weeks per average year. The single piers for the two bulb-tee bridges are located nearer to mid-channel. Navigation width is reduced to 75 feet for the Barnette Bridge and 85 feet for the Cushman Bridge. Total bank riprap would be approximately 95 feet wide for both bridges, with riprap extending about 20 feet on each side of the two bulb-tee bridges.

Another option considered for the Cushman Street Bridge was rehabilitation, including seismic retrofitting. However, rehabilitation would not provide the same remaining life as the bridge replacement options (Bridge Life-Cycle Cost Analysis 2004). This option would cost \$2,000,000.

3.5 NOYES SLOUGH BRIDGE DESIGN OPTIONS

DOT&PF considered three Noyes Slough Bridge Options. All of the options are single span concrete bridges. The bridge would be built using staged construction, so a detour structure would not be required.

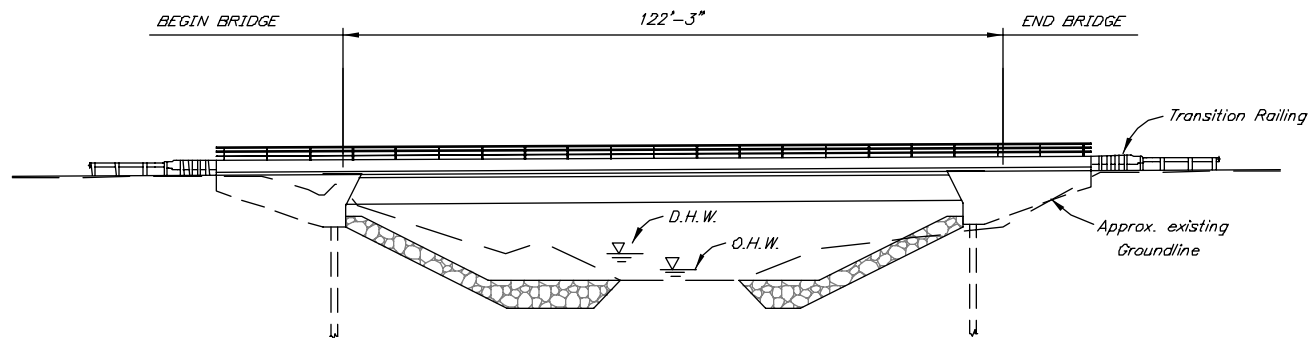
Table 6: Noyes Slough Bridge Alternatives

Option	Type	Cost
A*	Pre-cast I-girders cast-in-place deck	\$1,700,000
B	Cast-in-place box girder	\$2,600,000
C	Bulb-tee	\$1,700,000

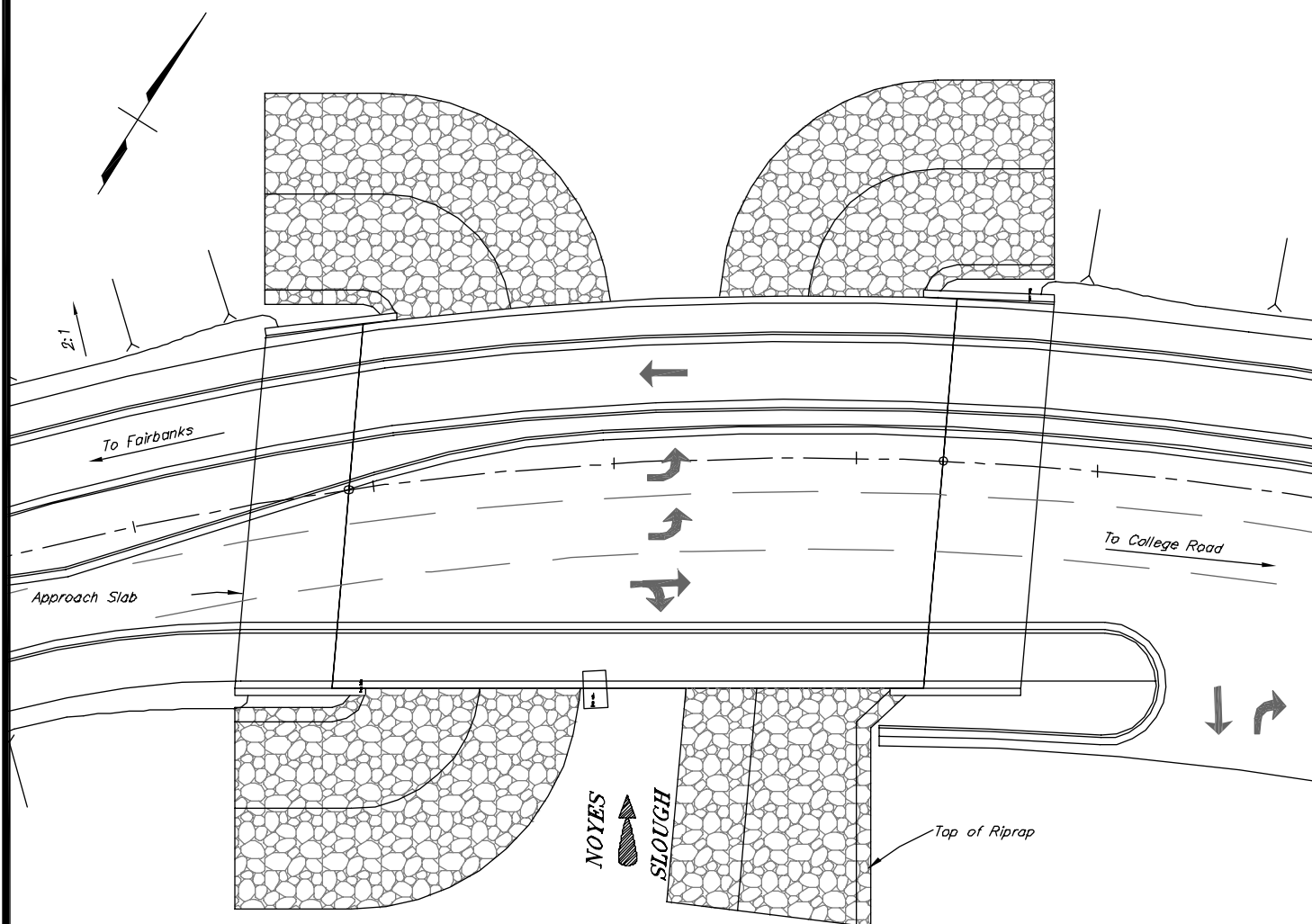
*Preferred Noyes Slough Bridge Alternative

Option A is the preferred Noyes Slough Bridge alternative (Figure 11). The preferred Noyes Slough Bridge alternative reduces the amount of falsework required to build the bridge and reduces construction time.

Option B would require falsework in the waterway, which may impact habitat. Option B is \$900,000 more expensive than the other options. Option C does not have the flexibility to meet roadway geometry. The exterior edge of the bridge deck cannot be curved enough to match the curve of the left edge of roadway. This would result in wasted bridge deck space behind the west-side rail at the south end of the bridge.



BRIDGE ELEVATION



BRIDGE PLAN

**ILLINOIS STREET RECONSTRUCTION PROJECT
NOYES SLOUGH BRIDGE PREFERRED ALTERNATIVE**

APRIL 2005

FIGURE 11

4 ENVIRONMENTAL CONSEQUENCES

Through agency coordination and field surveys, DOT&PF determined that several environmental impact categories are not affected by the proposed project actions. The table below briefly outlines these categories.

Table 7: Impact Categories Not Affected by Project

Impact Category	Description
<i>Threatened or Endangered Species</i>	No Threatened, Endangered or candidate species are listed on the United States Fish & Wildlife Service (USFWS) Alaska Region list in or near the project area. (Personal communication, Larry Bright, USF&WS, February 10, 2005).
<i>Wild and Scenic Rivers</i>	No wild and scenic rivers, as listed by the National Park Service, are impacted by the project (http://www.nps.gov/rivers/wildriverslist.html).
<i>Wetlands</i>	There are no wetlands within the project area above the ordinary high water mark of the Chena River and Noyes Slough.
<i>Coastal Barrier Resources</i>	Fairbanks is not within a designated Alaska Coastal Zone, nor is it near a zone of influence. (Alaska Coastal Management Program, www.alaskacoast.state.ak.us/ , Jan 05). This project would not affect land or water covered by the Alaska Coastal Zone Management Program (CZMP). No coastal barriers are within reach of project impacts.
<i>Farmlands</i>	The Farmland Protection Policy Act (FPPA) regulates Federal actions with the potential to convert farmland to non-agricultural uses, and the FHWA requires an assessment for prime or unique farmland in accordance with the US DOA Natural Resource Conservation Service (NRCS). The NRCS states that there are no prime or unique farmlands within the State of Alaska (NRCS official website Jan 05).

4.1 RIGHT OF WAY

4.1.1 Existing Environment

The project area is generally commercial but borders the Slaterville and Wickersham neighborhoods. The project corridor is an urban environment. Barnette Street is home to various downtown office buildings, banks, legal offices, and small retail merchants. There are offices, merchants, and hotels along Cushman Street. Driveway Street is the location of government offices, businesses, and an apartment building. Despite the difficulty visitors and locals

experience accessing the businesses, the project area contains thriving businesses, which makes the area ripe for post-construction revitalization.

The Immaculate Conception Church (listed on the National Register of Historic Places), Denali State Bank, the Fairbanks Daily News-Miner newspaper, and various other businesses exist on Illinois Street. Building and structure ages range from 1903 to the Doyon Building, built in 2002. Thirty-seven structures or buildings in the project area are 49-years old or older (NLUR Phase II Report, June 2003).

The former Alaska Railroad Corporation (ARRC) train depot, Golden Valley Electric Association, and an industrial district are to the west of Illinois Street. The Slaterville and Wickersham residential districts are adjacent to Illinois Street. The Illinois Street Historic District extends from Slater Street north to the Noyes Slough area (See section 4.5 Historic Preservation).

Parks in the area include:

- Golden Heart Plaza, south of Chena River
- Griffin Park, south of Chena River off Dunkel Street
- Golden Heart Park, north of Chena River
- Slaterville Park, north of Chena off Slater/Church Street

4.1.2 No Build Alternative

The No Build alternative would not require Right of Way acquisition. Increasing traffic and deteriorating road conditions would make access increasingly difficult to homes and businesses throughout the project corridor.

4.1.3 Build Alternative

Right of Way estimates show the Preferred Alternative would impact 57 properties, including 12 businesses that can qualify for relocation benefits under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended.

The Rose Building, a property determined eligible for the National Register of Historic Places, was removed and mitigated as part of an advanced acquisition for this project. The Rose

Building is discussed further in Section 4.5 Historic Preservation. No other historic buildings would be removed as part of this project.

The Preferred Alternative would impact 34 apartment units, including Jackovich Apartment building, which is a low-income housing unit built in 1959 with 24 one-room efficiencies, the Haman Apartments (8-Plex), Hot Tamale Living Quarters, and one unit in the Senco building. This alternative would require the demolition of these buildings and the relocation of residents. The Department's ongoing relocation study has provided the following information:

Jackovich Apartments, 98 N. Turner

- Rent is \$450 per month which includes all utilities
- Tenants: 62% native; 8% black; 30% caucasian
- Average age of tenants: 40-50 years of age
- Tenant history: 2-3 year occupancy
- Low-income tenants
- 6 tenants receive native corporation assistance
- The units have been patched rather than repaired for the last 15 years and are not in average condition.

(Personal communication, Buz Jackovich, 3/24/05.)

Haman Apartments, 224 Illinois Street

- Rent is \$500 per month, plus electric
- Tenants: 100% Caucasian
- Average age of tenants: 30-50 years of age
- Tenant history: 14 years, except one tenant (1 year)
- Low-income tenants
- 1 rental assisted occupant
- 100% Low-income tenants
- Eight, one-bedroom units
- The units have been patched rather than repaired

(Personal communication, Mr. And Mrs. Haman, 3/29/05)

Hot Tamale Living Quarters, 112A N. Turner Street (Upstairs)

- Occupied by owners of Hot Tamale Restaurant

Senco Apartment, 272 Illinois Street

- Unit is currently unoccupied

The FNSB Community Development Department compiles housing statistics in the FNSB Community Research Quarterly (Quarterly). The most recent Quarterly, Fall 2004, shows an average of 325 rental-housing units available in the Borough for March to September 2004. The Fairbanks Daily-News Miner lists approximately 26 rental-housing units available in the downtown area (Fairbanks Daily-News Miner, February 14, 2005).

The Alaska Housing Finance Corporation (AHFC) and Fairbanks Older Persons Action Group, Inc. (OPAG) list multiple state-assisted housing options for low-income seniors and disabled persons. Housing options near the downtown area include:

- Golden Ages, 1271 9th Avenue: One vacancy & one upcoming vacancy
- Golden Towers (96 Units), 330 3rd Avenue: Four upcoming vacancies
- Southall Manor (40 units), 401 7th Avenue: Two vacancies & one upcoming vacancy

Additional general low-income housing options for families near the downtown area include Birch Park I (505 Stewart Street), Birch Park II (Gillam Way), and Spruce Park. There are currently six available units at these complexes (Personal communications, Pat Verdugo, AHFC, March 14, 2005).

The available housing market in this area is quite active and as a result varies during the year. There are many realtors who would be able to help handle the need for replacement housing at the time of acquisition. The Department can assure that each relocatee will be offered decent, safe and sanitary housing within their financial means. A list of available and comparable replacement housing will be furnished to the relocatees with the benefit statement that will be attached to the notice to vacate. Within a reasonable period of time prior to displacement, a comparable replacement unit will be made available for the displacees. It is anticipated that the replacement cost for this 90 Day tenant-occupant will exceed the \$5,250 for replacement rental supplement.



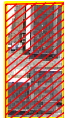
LEGEND:



TOTAL ACQUISITION



TOTAL ACQUISITION AND BUILDING IMPACTED



PARTIAL ACQUISITION



PARTIAL PROPERTY ACQUISITION
AND BUILDING ACQUISITION

4.1.4 Mitigation

Property owners would be compensated through the acquisition and relocation program, which would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources are available to all residential and business relocates without discrimination. DOT&PF would consider the wishes of all business owners in establishing appropriate economic mitigation measures. Cost-to-cure payments may be required.

4.2 SOCIAL

4.2.1 Existing Environment

The City of Fairbanks Police Department, the City of Fairbanks Fire Department, and Fairbanks Memorial Hospital serve the project area (Figure 13).

The Fall 2004 Quarterly report on social demographic and economic information for the City and Borough indicates the City of Fairbanks population has decreased slightly while the Borough population has increased over the last 10 years. The table below depicts 10-year population trends for the City and Borough. It appears that people are moving out of the City of Fairbanks and relocating within the Borough. Also, as the City develops, residences are converted to commercial properties. This is reflected in the City's population numbers.

Table 8: Fairbanks City and Borough Population Trends, 1993-2003

Year	City of Fairbanks	FNSB
1993	33,335	83,257
2000	30,224	82,840
2003	30,970	85,978

Source: Fairbanks Community Research Quarterly, Fall 2004

In compliance with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the Department performed a thorough analysis of the community composition adjacent to the project corridor. The Department used 2000 Census data and information collected through Right of Way activities.

The Department used Census data from block groups adjacent the project area north and south of the Chena River (Block Group 2, Census Tracts 1 & 5). DOT&PF determined minority

populations would be disproportionately affected by the preferred alternative, when compared to FNSB and State of Alaska data.



PUBLIC FACILITIES:

- 1 FAIRBANKS CITY HALL AND POLICE DEPARTMENT
- 4 CITY OF FAIRBANKS FIRE DEPARTMENT
- 5 FNSB TRANSIT CENTER
- 6 FNSB SCHOOL DISTRICT ADMINISTRATION BUILDING
- 8 ALASKA STATE COURTHOUSE
- 9 FNSB ADMINISTRATION BUILDING
- 16 GVEA ADMINISTRATIVE OFFICE

SCHOOLS:

- 3 TANANA VALLEY CAMPUS DOWNTOWN CENTER
- 15 MONROE CATHOLIC SCHOOL

NEIGHBORHOODS:

- 7 WICKERSHAM
- 13 BRANDT
- 14 SLATERVILLE

PARKS:

- 2 VETERAN'S MEMORIAL PARK
- 10 GOLDEN HEART PARK
- 11 GRIFFIN PARK
- 12 SLATERVILLE PARK

4.2.2 No Build Alternative

The No Build alternative would not correct existing safety and accessibility deficiencies. Excessive delay would inconvenience the community during peak travel times. This condition would likely worsen. Pedestrians and bicyclists wanting to travel to parks, schools, and downtown would continue to have inadequate facilities.

The narrow sidewalks on the Cushman Bridge would continue to result in uninviting pedestrian bridge crossings. The lack of a multi-use path connecting the riverfront to the College Road multi-use path would force bicyclists to continue sharing travel lanes with motorists. Drainage problems north of Phillips Field Road create seasonal ponds adjacent the roadway. These ponds force pedestrians to walk in the roadway to avoid getting wet and discourage travel by foot.

Community cohesion would continue to be disrupted by a corridor linking integral parts of Fairbanks that is not user-friendly and inviting. As traffic increases, the efficiency along the corridor would deteriorate for all users, including police, fire protection, and other users that provide public services. Immaculate Conception churchgoers would continue to experience difficulty entering and exiting at Doyon Place. The existing roadway configuration of Barnette Street would remain unconventional and confusing to motorists unfamiliar with the area. Unexpected and non-standard traffic patterns would continue to contribute to accidents.

All social groups would be negatively impacted by this alternative. The No Build alternative would not improve traffic safety or overall public safety.

4.2.3 Build Alternative

The Preferred Alternative will impact a disproportionate number of low-income residents. The proportion of low-income residents in two affected apartments is higher than the proportion in the project area. Low-income tenants, including six tenants receiving housing assistance from a native corporation predominantly occupy the Jackovich Apartments, 98 N. Turner. Low-income tenants, including one rental assisted occupant, also occupy the Haman Apartments, 224 Illinois Street.

Many of the units have been patched rather than repaired for many years in anticipation of the upcoming road project and are in below-average condition. This condition is reflected in the low rents of these units. Alternate housing is expected to be at a higher monthly rate. The available

housing market in this area is quite active and as a result varies in cost during the year. There are many realtors who would be able to help handle the need for replacement housing at the time of acquisition.

The Preferred Alternative would enhance neighborhood cohesion. The Build Alternative is expected to increase commercial property values throughout the corridor as access, appearance, and usability increase.

This alternative would improve vehicular, bicycle, and pedestrian travel patterns throughout the project corridor. The new pedestrian/bike path along the eastside of Illinois would allow school children and recreational and commuter pedestrians safer access to schools, downtown, and residences. Slaterville traffic would be routed to either Minnie or Church Street for southbound travel as Slater Street is changed to a right-in, right-out only intersection with Illinois. Slaterville residents often resort to using these intersections instead of Slater Street during periods of heavy traffic on Illinois Street. Proposed traffic pattern changes would improve access and safety for vehicles, bikes, and pedestrians throughout the entire corridor, allowing these modes of transportation to partly replace or slow the growth in local vehicular travel.

A wide sidewalk on Cushman Street Bridge would provide an inviting path for visitors and locals to observe events on the Chena River. The additional triangular open space created by the new Barnette Street bridge would provide a long-term beautification opportunity for the core of downtown Fairbanks. This is discussed further in section 4.6 Visual.

4.2.4 Mitigation

It is anticipated that the replacement housing the Department finds for the tenants will require the payment of a higher rent than they currently pay. The higher rent is anticipated to be above \$5,250, and will be likely to trigger Last Resort Housing. Last Resort Housing is anticipated due to the current monthly rents paid versus what the market is anticipated to require. There is adequate housing available.

The Department can assure that each relocatee will be offered decent, safe and sanitary housing within their financial means, or attainable with Last Resort Housing. A list of available and comparable replacement housing will be furnished to the relocatees. Within a reasonable period

of time prior to displacement, a comparable replacement unit will be made available for the displacees.

4.3 ECONOMIC

4.3.1 Existing Environment

Fairbanks is the primary service and supply center for Interior Alaska. The City has a diverse economy. Factors affecting the local economy include government, manufacturing, communication, medical and financial services, tourism, and mining.

The project area contains the following major employers:

- Tanana Valley College Downtown Campus Center
- Fort Knox Gold Mine, 15 miles northeast of downtown
- Federal, State, and local government
- FCVB and other tour providers
- Local hotels: SpringHill Suites by Marriott; Bridgewater Hotel
- Eielson AFB, 26 miles southeast of Fairbanks
- Fort Wainwright

Fairbanks is a tourist attraction, and tourism is an important contributor to the Fairbanks' economy. Tourists visit Fairbanks via plane, train, and tour bus as part of large-scale summer tour operations creating many employment opportunities in the area. In 2004, during the peak tourist season (July to September) there were approximately 4,600 leisure & hospitality jobs and approximately 3,550 jobs from January-March 2004 (Quarterly). Tour operators arrange lodging in the downtown Fairbanks area. While most tourists stay only one or two nights in Fairbanks, their impression of the City as an inviting, safe, and accessible place affects the economic benefit the tourism industry provides.

The FNSB economy is strong. In 2000, 7.8 percent of the FNSB population was below the poverty level; in 1990 7.5 percent was below the poverty level (Alaska Economic Information System, Department of Commerce, Community and Economic Development, Official Website). Job opportunity in the Fairbanks job market is good and rising. Total employment has increased 1.0% from the second quarter of 2003 to the second quarter of 2004 with 36,900 civilian

employees in the FNSB during the fall 2004 quarter (Quarterly). This is a slow, steady job growth rate.

A recent survey of job openings in the Fairbanks area in the unskilled to trained labor categories showed 14 sales/customer service jobs advertised, five medical support staff, 14 laborer and 20 jobs in a variety of industries requiring moderate professional skills (fairbankshelpwanted.com, Feb 9, 2005).

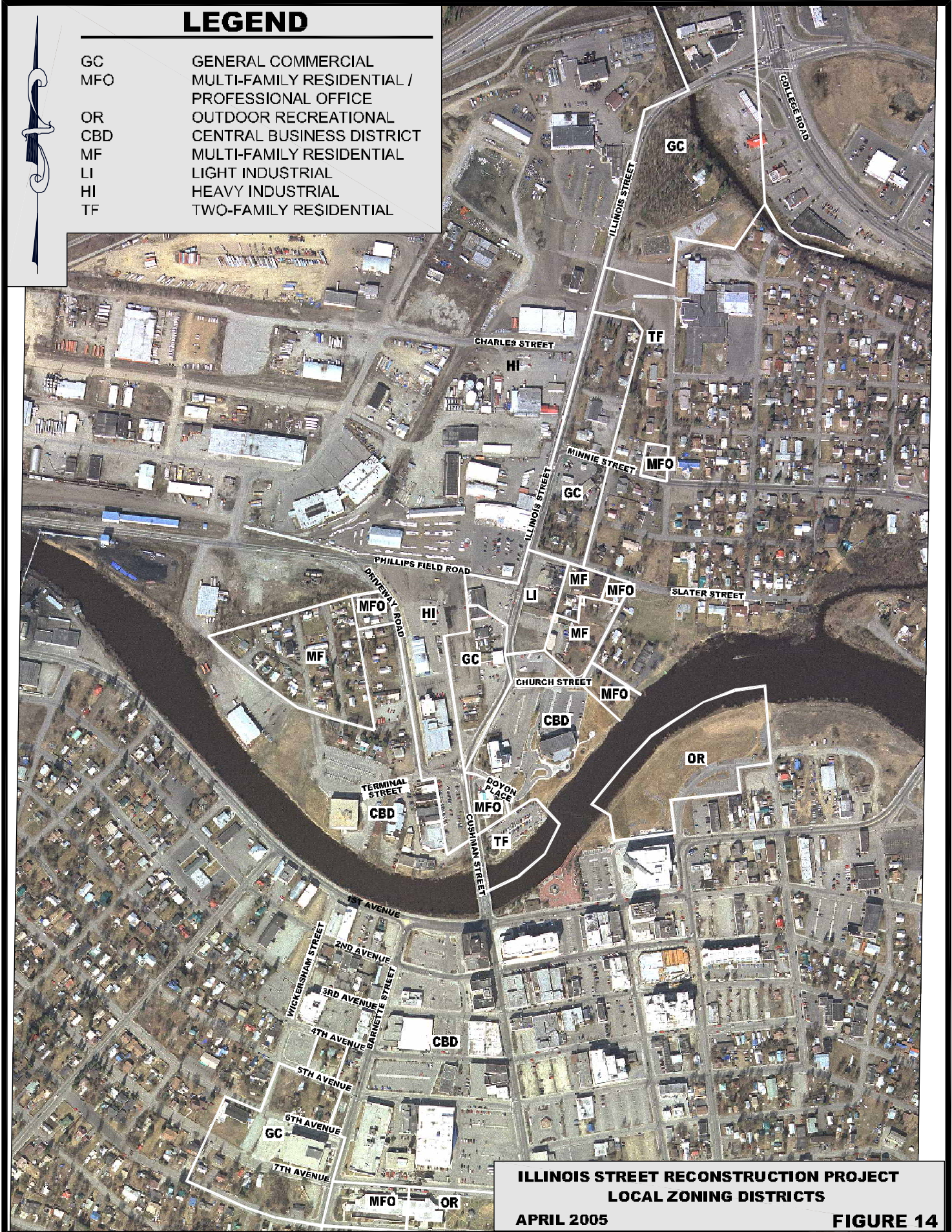
The project corridor includes the northern portion of Fairbanks's Central Business District. Industrial, retail/commercial, institutional, and residential lands exist within the project area. Currently, the project corridor has a mix of commercial/residential zoning districts (Figure 14).

4.3.2 No Build Alternative

The No Build alternative would negatively impact the economy in the project corridor as accessibility and safety continue to decrease. This alternative would not allow for potential project-area revitalization. The No Build alternative would not use this opportunity for the transportation investment of this project to support both public and private economic development plans as outlined in the FNSB Comprehensive Plan for sustainable land use and responsible economic development (Comprehensive Plan Advisory Committee Draft 6-2-03).

LEGEND

GC	GENERAL COMMERCIAL
MFO	MULTI-FAMILY RESIDENTIAL / PROFESSIONAL OFFICE
OR	OUTDOOR RECREATIONAL
CBD	CENTRAL BUSINESS DISTRICT
MF	MULTI-FAMILY RESIDENTIAL
LI	LIGHT INDUSTRIAL
HI	HEAVY INDUSTRIAL
TF	TWO-FAMILY RESIDENTIAL



4.3.3 Build Alternative

The Preferred Alternative would create positive economic impacts. Additionally, this alternative would provide beneficial Secondary Economic Impacts. The Council on Environmental Quality (CEQ) defines Secondary Impacts as impacts that are caused by the action and occur later in time or are further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8). These changes take place after the initial Right of Way acquisition and mitigation has been completed.

This alternative provides numerous beneficial Secondary Economic impacts that conform to the FNSB Regional Comprehensive Plan. As construction ends and the project corridor becomes fully usable, retail activity in the project area may increase. Improved vehicular and pedestrian/bike access to businesses would spur economic growth.

According to the FNSB, Department of Financial Services, Division of Treasury and Budget, the Borough collects around \$65 million a year in property tax. Preliminary economic impact analysis for this project (Northern Economics, Inc., 2003) indicated the preferred alternative would impact sales tax revenues, property tax revenues, and maintenance costs. The current mill rate for all properties affected is 20.777. Right of Way acquisitions would result in a temporary reduction of approximately \$50,000 in annual property tax revenues, as those displaced are likely relocated elsewhere in the Borough.

The Preferred Alternative may affect approximately 150 employees during the construction phase. The project would cause approximately 15% interim job loss from Right of Way acquisition. Given the contemporary job market, in conjunction with the affected business owners' stated plans, the job loss or displacement concerns created by this alternative should be temporary.

The FNSB Comprehensive Economic Development Study (CEDS) was originally developed in 1999 and adopted as a part of the Regional Comprehensive Plan. The Regional Comprehensive Plan outlines various community development, environmental, and economic goals. The proposed action supports CEDS/Regional Comprehensive Plan goals and policies by:

- Providing a sustainable, vibrant, and diverse economy
- Improving transportation to foster economic development

- Developing and maintaining Fairbanks as the transportation hub of Alaska's interior
- Emphasizing tourism development
- Continuing Downtown revitalization efforts
- Creating economic enterprise for Downtown Fairbanks
- Providing the potential for economic growth while protecting environmental systems

This project would improve a major link between downtown Fairbanks and surrounding areas. The Preferred Alternative improves access, capacity, and safety. This would spur economic development throughout the project corridor and beyond.

4.3.4 Mitigation

Economic impacts to individual properties would be mitigated through the Uniform Act and DOT&PF policies and procedures. The project would have a beneficial impact on the local economic environment.

4.4 LOCAL LAND USE AND TRANSPORTATION PLAN

4.4.1 Existing Environment

The Fairbanks Metropolitan Area Transportation System (FMATS) is the official governing transportation board for the FNSB. FMATS has established a Long Range Transportation Plan (LRTP), which is a component of the Regional Comprehensive Plan. The Illinois Street Reconstruction Project is a priority project for FMATS for 2007-2010. The LRTP recommends pedestrian pathway connection from 1st Avenue to Phillips Field Road on both sides of Illinois Street and new sidewalks/bike lanes from Phillips Field Road north to College Road.

The Regional Comprehensive Plan outlines goals, objectives and policies necessary for the continued development of the FNSB. The Mayor, the Borough Assembly, the Planning Commission, the Platting Board, and other commissions and groups use the Plan to make decisions about neighborhoods, roads, shopping locations, recreational facilities, emergency services, open space areas, and many other elements of the FNSB living environment (FNSB Department of Community Planning, official website).

The Fairbanks Downtown Transportation Study (DOT&PF, 2001) considered existing and long-term transportation demands. The study recommended resolving long-standing issues with the

Illinois Street Reconstruction Project. The study described this project as a “Cornerstone project, offering solutions to a number of key traffic and pedestrian circulation issues in the heart of the downtown core area.” The City of Fairbanks passed Resolution No. 3936 in August 2001 accepting and supporting this study as a guide for future traffic, pedestrian circulation, and streetscape improvements in the downtown Fairbanks area.

4.4.2 No Build Alternative

The No Build alternative would not comply with the future land use and transportation goals outlined in the FMATS and FNSB Regional Comprehensive Plan. This alternative would close the door on the opportunity to responsibly develop the project corridor to meet future transportation and land use needs.

The project corridor has seen increased traffic and interconnection to surrounding transportation system improvements since 1978, including the *Illinois Street-Minnie Connector Project*, the *Geist Road Extension Project*, and the *Barnette Street Reconstruction Project*. However, construction in the existing project corridor has not occurred with any previous major DOT&PF projects. Delay in reconstructing Illinois Street has negated potential land use benefits.

This alternative would continue the safety and capacity problems discussed in Purpose and Need. The lack of pedestrian access to businesses in the area would continue as would the delayed building remodels and constrained use of Downtown as a core community gathering area and attraction.

Property owners have been unable to invest in improvements in anticipation of DOT&PF's construction in the corridor. The No Build alternative would not provide reason for local businesses to improve their facilities.

This alternative is not consistent with the Local Land Use and Transportation Plan.

4.4.3 Build Alternative

The proposed project is compatible with planning and zoning goals established in the FNSB Draft Regional Comprehensive Plan. The Preferred Alternative is consistent with the FNSB Regional Comprehensive Plan for commercial land use. This alternative would provide a more convenient, accessible, attractive and visible commercial area. Improvements to existing commercial land

within the project corridor would maintain service for the local market area. Furthermore, the project remains consistent with the evolving FMATS LRTP, the Chena Riverfront Commission Riverfront Plan, and the FNSB Bike Plan.

The Preferred Alternative supports the following goals, policies, and objectives established in the FNSB Comprehensive Plan:

General Land Use

- Goal 1, Policy 2—Support multi-modal transportation linkages between communities in the Borough
- Goal 1, Policy 3—Provide for open space using public land along major transportation corridors between borough communities to retain the individual community identities
- Goal 1, Policy 4—Promote urban core areas as high-density residential/economic/social/cultural focal areas in the Borough
- Goal 1, Policy 4, Objective 2—Upgrade core area utilities, streets and sidewalks to meet future needs

Commercial Land Use

- Goal 1—To have a variety of commercial land uses;
- Goal 1, Policy 2—Encourage new public and private offices, commercial malls and groups of stores within preferred commercial areas

Industrial Land Use

- Goal 1—To have a variety of industrial land uses
- Goal 1, Policy 2—The integrity of industrially classified areas should be protected and preserved for industrial use
- Goal 3, Policy 2—Encourage adequate transportation services to serve industrial activities and associated business concerns

(FNSB Draft Regional Comprehensive Plan, CPAC Draft 6-2-03)

The Preferred Alternative advances the FNSB Bike Plan (November 1989), which addresses bike concerns for the FNSB, by developing safe bicycle facilities and connecting the Riverfront and Johansen Expressway Multi-Use Paths. This alternative improves access to the downtown area as addressed in the Bike Plan for Barnette Street and Illinois Street.

The Preferred Alternative would create a triangular open space between the Cushman and Barnette Bridges. DOT&PF would provide topsoil, seeding, and water and power service connections for this space. Community groups would be encouraged to provide landscaping and regular maintenance.

4.4.4 Mitigation

The Preferred Alternative is consistent with local land use and transportation planning goals. No mitigation is required.

4.5 HISTORIC PRESERVATION

4.5.1 Existing Environment

DOT&PF began historic studies for this project in 1983. Section 106 consultation, required by the National Historic Preservation Act, continued through 2005 and included the following reports:

- 1986 and 1987 Ketz and Arundale
- 1989 Jordan and Gerlach
- 1989 and 1990 Cole
- 1990 Lazenby
- 1998 Bowers and Gannon
- 2004 Williams and Bowers

As mentioned in 4.1 Right of Way, the Rose Building, a listed National Register of Historic Places (NRHP) property, was acquired and removed as part of this project. Mitigation for this building was completed under the terms of an MOA signed by FHWA in 1985. It consisted of Historic American Building Survey (HABS) documentation for the Rose Building, and 13 grants totaling over \$273,000 to restore other historic properties in Fairbanks. The following historic properties received grant money as mitigation for the Rose Building:

Table 9: Rose Building Mitigation

Recipient	Property/Action	Amount
City of Fairbanks	City Hall roof repair	\$25,000
Richard Winther	Ester Gold Camp	\$24,775
Ann Ringstad	F.E. Manager's House	\$19,347
Friends of Creamers Field	Open the Barns Doors – Phase I (cancelled)	-
Jim Whitaker	Lathrop Building	\$25,000
Al Ophaug	Public Awareness of Ophaug House	\$25,000
Immaculate Conception Church	Church (under grant)	\$25,000
Bill Bubbel	Chena Pumphouse foundation	\$25,000
Tanana Yukon Historical Society	Rebekah Lodge	\$25,000
Tanana Mill Co., Inc.	Fairbanks Exploration Inn (cancelled)	-
Thane Magelky	229 Well Street	\$25,000
Bonnie Lundell Roberts	1027 5 th Avenue	\$4,743.97
Rebekah Lodge	Rebekah Lodge	\$49,160.96

Source: SHPO letter to Joe Keeney, September 16, 2002.

The 1985 MOA also included mitigation to replace the hedge in front of the Sexton Building. The current property owner recently cut down this hedge to improve visibility of the commercial business located in the building.

In 1991, DOT&PF initiated a literature search to document existing resources in the project area and develop an excavation plan for the Chena River Waterfront Archaeological Investigation. Digging occurred on both the north and south side of the Chena River. On the south side the excavation included the riverbank and along Barnette Street almost to 2nd Avenue. The purpose of the dig on the south side was to find historic/archaeological information to determine the

structure of the local economy in the early 1900's and also to locate the Northern Commercial (NC) docks in relation to the NC Buildings.

The north side investigation was looking for artifacts from the Miner's Home Saloon in the parking lot of the Big I. The excavations and the resulting document cost approximately \$1.3 million. This effort was specifically undertaken as mitigation for this project. An MOA was signed by FHWA and SHPO in 1992, and a report was published in 1998 (Bowers and Gannon).

The Dominion Warehouses are eligible for the NRHP. They are outside of the project area. The Immaculate Conception Church is listed on the NRHP. The Illinois Street Historic District, located between Slater Street and Noyes Slough, is also listed on the NRHP. The following buildings contribute to the Illinois Street Historic District (Figure 15):

- Johnson/Hayr House, 303 Illinois Street
- Mapleton/Sexton House, 315 Illinois Street
- Noyes House, 407 Illinois Street
- Fairbanks Exploration (FE) Housing Complex (5 buildings & 2 structures), 505, 507, 521, and 523 Illinois Street
- FE Company Office, 612 Illinois Street
- FE Manager's House, 757 Illinois Street



LISTED STRUCTURE NAMES

- 1 CHENA RIVER WATERFRONT ARCHAEOLOGICAL INVESTIGATION SITE
- 2 DOMINION COMPANY WAREHOUSES (2EA.) (LOCATED OUTSIDE IMPACT AREA)
- 3 IMMACULATE CONCEPTION CHURCH
- 4 ROSE BUILDING
- 5 JOHNSON/HAYR HOUSE
- 6 MAPLETON/SEXTON HOUSE
- 7 NOYES HOUSE
- 8-12 FE COMPANY HOUSING COMPLEX (5 BUILDINGS)
- 13 FE COMPANY OFFICE (GIVEA)
- 14 WHITE HOUSE (FORMER FE RESIDENCE, CONVENT)

KEY

- STRUCTURE LISTED ON THE NATIONAL REGISTER
- STRUCTURE EVALUATED AS ELIGIBLE TO THE NATIONAL REGISTER BY THIS PROJECT

ILLINOIS STREET RECONSTRUCTION PROJECT
PROPERTIES LISTED OR ELIGIBLE
FOR THE NATIONAL REGISTER OF HISTORIC PLACES (NRHP)
APRIL 2005
FIGURE 15

4.5.2 No Build Alternative

This alternative would not impact or improve access to historic properties within the project area.

4.5.3 Build Alternative

The Department has thoroughly evaluated historic impacts for the Preferred Alternative in accordance with the requirements of 36 CFR 800.4. SHPO has concurred with DOT&PF, granting a Determination of No Adverse Effect for the Preferred Alternative (Appendix E).

The Preferred Alternative moves the sidewalk further away from the Immaculate Conception church to ensure no impact. Vibration monitoring of pile driving and other construction activities would take place in order to insure the vibrations from construction do not harm the church. An engineer's report and video of the church would be prepared prior to construction. The Department would monitor vibrations during construction. Lexan, a material like Plexiglas, would be offered for placement over the windows of the church during construction to protect the church from the possibility of construction debris damaging the windows.

The Preferred Alternative adds sidewalks and lighting that are a net benefit to the Historic District. Minor strips of property would need to be acquired adjacent the existing ROW to accommodate these improvements. Approximately 20 feet of additional Right of Way would be required beyond the current ROW from Slater Street, the south terminus of the District, north to Noyes Slough on the eastside of Illinois Street. An additional small amount of ROW would be required along both sides of Minnie Street. This results in No Adverse Effect to the Historic District.

4.5.4 Mitigation

DOT&PF has committed to interpretive signing for the Illinois Street Historic District. The Department proposes three signs.

- South of Slater Street on the east side of Illinois alerting north bound travelers of the historic district ahead
- Interpretive signs would be placed in front of the FE Company Administration Building and between Minnie Street and Noyes Slough

- South of Noyes Slough on the west side of Illinois Street alerting southbound traffic of the historic district ahead

DOT&PF would coordinate with SHPO to determine the size and narrative content of these signs. Nearly half of the project development cost to date has been expended for Section 106 compliance. No further mitigation is required.

4.6 VISUAL

4.6.1 Existing Environment

The general landscape setting of downtown Fairbanks is an alluvial plain with Noyes Slough and the Chena River transecting the project corridor. The project area is viewable from two surrounding neighborhoods, existing city streets, the downtown core, Chena River users, a warehouse and a new footbridge across the Chena River.

There are four distinct landscape units in the project area. They are as follows:

- Central Business District—includes the south bank of the Chena River and the downtown core
- Warehouse and Railroad District—north of the Chena River
- Industrial District—Phillips Field Road north to the Monroe Catholic School
- Noyes Slough District—Monroe Catholic School north to College Road

Additionally, there are various visual resources that are important to local viewers. These resources include the Immaculate Conception Church, Cushman Street Bridge, commercial buildings associated with the rail yard and warehouse district, and waterway views of the Chena River.

4.6.2 No Build Alternative

This alternative would not improve the visual aspects of the roadway entrance into the Central Business District.

4.6.3 Build Alternative

The Preferred Alternative would improve and increase the aesthetics of the area and maintain the visual qualities of the Central Business District. Construction of the new bridge joining Barnette

Street with the north bank of the Chena River would remove several commercial building structures on the north bank of the river. This would create an additional triangular open space on the north riverbank between the new north portion of Barnette Street and Cushman Street to the east (Figure 16). Visual quality in this area would remain moderately high. The Preferred Alternative would improve the visual qualities of the Immaculate Conception Church by providing wider sidewalks and increasing the distance between the church and the sidewalk.

The Preferred Alternative would create a five-legged intersection at Terminal Street/Doyon Place. Many of the existing commercial buildings to the southwest of this intersection would be removed. This would retain the area's uniqueness while upgrading the infrastructure, providing a more open entrance to the Central Business District. Thus, the Preferred Alternative increases visual quality in this section of the project corridor.

From Minnie Street north to College Road the Department would seek to place overhead electrical lines underground. This provides room for a vegetation screen between the roadway and off-street industrial areas. Pedestrian and buffering additions improve the visual quality for this portion of the project corridor.

4.6.4 Mitigation

The Preferred Alternative provides a beneficial visual impact. No mitigation is required.



TRIANGLE WITH TIERED LANDSCAPING

VIEW FROM 1st AVENUE NORTH ACROSS CHENA RIVER

**ILLINOIS STREET RECONSTRUCTION PROJECT
PREFERRED ALTERNATIVE VISUAL SKETCH
TRIANGLE WITH TIERED LANDSCAPING**

APRIL 2005

FIGURE 16

4.7 HAZARDOUS WASTE

4.7.1 Existing Environment

ADEC records indicate that there were 13 contaminated sites in the project area. The 1989/1991 DOT&PF Right of Way study for the *Illinois Street-Minnie Connector Project* investigated ARRC property along Charles Street, Driveway Street and Oil Avenue.

In 1993 and 1994, USGS and ADEC determined that groundwater was contaminated with petroleum and solvents. The Minnie Street Land User Group (MSLUG) also characterized contamination in the area (Vohden 1994). In 2002, ADEC developed the Fairbanks Area-wide Industrial Reclamation (FAIR) project to further define areas of contamination. Groundwater throughout the project area is known, or likely to be contaminated with a range of hydrocarbons and solvents, particularly north of the Chena River (Fairbanks Downtown Corridor Area Wide Management Plan 2002). Groundwater fluctuates seasonally from nine feet to 15 feet below ground level; resulting in a hydrocarbon smear zone.

DOT&PF has collected the following information regarding contaminated sites in the project corridor:

- Contaminated sites within the project ROW south of the Chena River have been remediated.
- Solvents and hydrocarbons well below risk levels have been found near Samson Hardware, 100 N. Turner Street.
- The vacant lot on the north corner of Church Street and Illinois Street was drilled within the proposed ROW and was not found to be contaminated.
- The Petroleum Sales/Unocal property, 328.5 Illinois Street, contains various solvents and petroleum hydrocarbon contaminants. This site is an active contaminated site in ADEC's records.
- The Sourdough Fuel Storage Facility, south of Charles Street, has hydrocarbon contamination.
- A groundwater plume is present at Kelly's Firestone at 269 Illinois Street. ADEC currently has a No Further Remedial Action Planned status for Kelly's Firestone based on its current use and previous soil cleanup efforts.

- The former Alaska Gold buildings (FE Office), south of Noyes Street at 612 Illinois Street, have a history of heavy metal and PCB soil contamination.
- Groundwater at the Golden Valley Electric Association (GVEA) complex at 758 Illinois Street has known chlorinated compounds and BTEX contamination. BTEX is a group of volatile organic compounds (VOCs). BTEX is an acronym for benzene, toluene, ethylbenzene, and xylene. BTEX is found in petroleum hydrocarbons and other environmental contaminants.

4.7.2 No Build Alternative

This alternative would not impact contaminated sites in the project area. The No Build alternative would not allow the further investigation of suspected contaminated sites.

4.7.3 Build Alternative

The Preferred Alternative would require excavation for road construction. Excavation for road construction would generally occur at a maximum of four feet below ground surface level. This would not impact contaminated groundwater. Contaminated soils encountered would be transported and treated according to ADEC requirements. Utility, storm drain, and sewer work may take place at greater depths and would take place during periods when the water table was low, usually fall or early spring.

4.7.4 Mitigation

DOT&PF would avoid contact with groundwater and soils in the smear zone during excavation. If the Preferred Alternative requires excavation below eight feet, this excavation would take place during the winter months to reduce potential groundwater encounters. Under the advice of ADEC, a construction contingency plan would be established to handle currently unforeseeable impacts to contaminated soils or groundwater.

4.8 AIR QUALITY

4.8.1 Existing Environment

On March 30, 1998, Fairbanks and North Pole were designated as Carbon Monoxide (CO) Serious Non-attainment Areas. There are two National Ambient Air Quality Standards (NAAQS) for CO: the 1-hour average standard is 35 parts per million (ppm) and the 8-hour average standard is 9 ppm. The area did not meet the deadline for attaining the NAAQS for CO (December 31, 1995). The area was determined to have attained the CO NAAQS by the December 31, 2001 attainment date. In accordance with section 175A(a) of the Clean Air Act Amendments (CAAA), the state submitted a maintenance plan to U.S. Environmental Protection Agency (EPA). In September 2004, the state received approval, and the area is now listed as a CO maintenance area.

The Fairbanks area has not recorded a primary or secondary CO NAAQS violation since 1999. This project is included in the 2004-2006 State Transportation Improvements Program (STIP). This project is determined to conform with the purpose of the current State Implementation Plan (SIP) and the requirements of the CAAA (CH2Mhill, Air Quality Analysis, 2005).

Air quality receptors placed throughout the project corridor assessed existing, No Build and Build conditions for both the opening year (2007) and design year (2035) for this project. The table below presents the results of this analysis for existing conditions:

Table 10: 2000 Existing Air Quality Maximum CO Concentrations (ppm)

Scenario	1-Hour Concentration (ppm)	8-Hour Concentration (ppm)
<i>Illinois Street/College Road Intersection</i>	12.0	8.4

NAAQS for 1-Hour Carbon Monoxide—35 ppm (not to be exceeded more than once per year)
NAAQS for 8-Hour Carbon Monoxide—9 ppm (not to be exceeded more than once per year)

4.8.2 No Build Alternative

Under the No Build alternative the Illinois Street/College Road intersection would have slightly higher 2035 ratings for both the 1-Hour and 8-Hour criteria than with the Build Alternative. This alternative would have no impact on air quality.

Table 11: No Build Air Quality Conditions

Scenario	1-Hour Concentration (ppm)	8-Hour Concentration (ppm)
2007 No Build		
<i>Illinois Street/College Road Intersection</i>	9.7	6.8
<i>Terminal/Doyon/Illinois Intersection</i>	-	-
2035 No Build		
<i>Illinois Street/College Road Intersection</i>	8.7	6.1
<i>Terminal/Doyon/Illinois Intersection</i>	-	-

Note: The No Build scenarios for Terminal/Doyon/Illinois were not analyzed since all build scenarios for this intersection were predicted to be in attainment of the NAAQS.
NAAQS for 1-Hour Carbon Monoxide—35 ppm (not to be exceeded more than once per year)
NAAQS for 8-Hour Carbon Monoxide—9 ppm (not to be exceeded more than once per year)

Federal regulations require manufacturers to reduce emissions of CO from new vehicles. These reductions have been and will be increasingly more stringent over time. The results indicate that the reductions in CO emissions from future vehicles will more than compensate for the anticipated increase in the number of vehicles in the project area due to growth.

4.8.3 Build Alternative

The Build Alternative would provide the following air quality conditions.

Table 12: Build Alternative Air Quality Results

Scenario	1-Hour Concentration (ppm)	8-Hour Concentration (ppm)
2007 Build		
<i>Illinois Street/College Road Intersection</i>	9.8	6.9
<i>Terminal/Doyon/Illinois Intersection</i>	8.7	6.1
2035 Build		
<i>Illinois Street/College Road Intersection</i>	8.7	6.1
<i>Terminal/Doyon/Illinois Intersection</i>	7.8	5.5

NAAQS for 1-Hour Carbon Monoxide—35 ppm (not to be exceeded more than once per year)
NAAQS for 8-Hour Carbon Monoxide—9 ppm (not to be exceeded more than once per year)

Air quality under the Build Alternative would be no worse than under the No Build alternative for the design year of this project (2035). The Preferred Alternative meets Conformity Requirements as established in the Intermodal Surface Transportation Efficiency Act (ISTEA) and the 1990 Clean Air Act Amendments (CAAA), adopted by the State of Alaska as follows:

- The Preferred Alternative does not increase the severity or frequency of existing exceedances of the CO standards.
- The Preferred Alternative does not cause a new exceedance of the CO standards.
- The Preferred Alternative does not delay the timely attainment of the CO standards.

4.8.4 Mitigation

This project does not impact air quality. No mitigation is required.

4.9 NOISE

4.9.1 Existing Environment

The urban environment of the project corridor exhibits many noise sensitive receivers, including a church, residences, and businesses. Land use in the project corridor consists primarily of Activity Category B, C, and D. The Department considered Activity Category E (Interior) at the Immaculate Conception Church and the Chapel of Chimes Funeral Home. The following table outlines the FHWA Noise Abatement Criteria (NAC) for specific land uses.

Table 13: FHWA Noise Abatement Criteria

Activity Category	Design Noise Levels L(eq) hourly dBA	Land-Use Category Description
A	57 (exterior)	Tracts of land for which serenity and quiet are of extraordinary significance, and which serve an important public need. The preservation of serenity and quiet is essential if this land is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts dedicated to or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (exterior)	Developed lands, properties or activities not included in Categories A and B above.
D	-	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Federal Highway Administration, April 1992, Code of Federal Regulations, Title 23, Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*

Existing noise conditions are affected by vehicle traffic, small planes, and train activity on the nearby ARRC spur. In order to determine the amount of noise the project corridor sensitive receivers experience, monitoring locations were selected and additional sensitive receptors were placed throughout the project corridor.

Table 14: Sensitive Receptor Locations

Site	Location	Name
M1	east of Illinois near FCVB and Chena River	FCVB
M2	east of Illinois across the Chena north of M1	Chena River North
M3a	Inside Immaculate Conception Church	Immaculate Conception
M4 ¹	west of Illinois Street, residences off Driveway Street	Driveway Street Residence
M5	West of Illinois, near The Diner Restaurant	The Diner
M6	east of Illinois, residences near Church Street	Courtney Apartments
M7 ²	east of Illinois between Hayr Residence and Hair Body & Sol	Between Hayr House and Hair Body & Sol
R7a	east of Illinois; Hayr Residence front yard	Hayr House Front
R7b	east of Illinois; Hayr Residence back yard	Hayr House Back
M8	south of Minnie; east of Illinois, near Minnie Street Bed & Breakfast	Minnie Street B&B
M9	Outside Chapel of Chimes	Exterior Chapel of Chimes
M10*	east of Illinois; residences behind Chapel of Chimes	Behind Chapel of Chimes
M11	east of Illinois; FE Complex	FE Complex
M12	east of Illinois; Catholic school playground	Monroe School Playground
M13	east of Illinois; White House	White House
M14	west of Illinois; Corner 101 Apartments	Corner 101
M15	west of Illinois; Golden Valley Electric	GVEA

¹ The predominant noise for receptor M4 is from Driveway Street, not Illinois; thus, this receptor was dropped from final analysis. M10 was dismissed because it resides behind a commercial building.

² Receptor M7 is between a commercial structure and a residence. It is evaluated according to FHWA Noise Abatement Criteria Category B for this project.

Source: CH2MHill, Noise Analysis Report, March 2005

The following table depicts existing (2004) noise levels recorded by noise sensitive receptors separated by noise category area. Noise level impacts occur where noise levels approach within 2 dBA or exceed FHWA NAC. Noise level impacts occur for existing peak hour noise conditions at M7 (Between Hayr House and Hair Body & Sol), R7a (Hayr House Front) and M14 (Corner 101 Apartments).

Table 15: Existing Noise Levels

No-Build in dBA	
Category A Receptors: NAC is 50 dBA	
<i>Site</i>	<i>Existing 2004</i>
Immaculate Conception	41

Category B Receptors: NAC is 65 dBA	
FCVB	60
Chena River North	61
Courtney Apartments	59
Between Hayr House and Hair Body & Sol	65
Hayr House Front	66
Hayr House Back	61
Minnie Street B&B	56
Monroe School Playground	58
White House	56
Corner 101 Apartments	67

Category C Receptors: NAC is 70 dBA	
The Diner	63
Exterior Chapel of Chimes	65
FE Complex	64
GVEA	62

Source: CH2MHill, Noise Analysis Report, March 2005

Inside noise measurements taken at the Chapel of Chimes (M9) show existing peak hour interior noise levels at 40dBA. Chapel of Chimes (M9) is considered land use activity Category C.

There is no FHWA criteria for interior noise for Category C, thus no comparison of interior noise levels at this location can be made (CH2MHill, Noise Analysis Report, March 2005).



**CORNER 101
APARTMENTS**

**HAYR
RESIDENCE**

ILLINOIS STREET RECONSTRUCTION PROJECT
NOISE RECEPTOR LOCATIONS APPROACHING OR
EXCEEDING NOISE ABATEMENT CRITERIA

APRIL 2005

FIGURE 17

4.9.2 No Build Alternative

Because traffic levels will increase over time, noise levels will increase even if this project is not built. Under the No Build alternative, noise levels would continue to exceed NAC for the Hayr Residence and Corner 101 Apartments. The following set of tables depicts existing versus future No Build noise by category area. Cells in bold indicate noise impacts.

Table 16: Existing and No Build Projected Noise Levels at Peak Hour Traffic

No Build Alternative in dBA		
Category A Receptors (NAC is 50 dBA)		
<i>Site</i>	<i>Existing</i>	<i>No Build (2035)</i>
Immaculate Conception	41	43

Category B Receptors (NAC is 65 dBA)		
FCVB	60	62
Chena River North	61	63
Courtney Apartments	59	60
Between Hayr House and Hair Body & Sol	65	66
Hayr House Front	66	67
Hayr House Back	61	62
Minnie Street B&B	56	58
Monroe Playground	58	59
White House	56	57
Corner 101	67	68

Category C Receptors (NAC is 70 dBA)		
The Diner	63	64
Chapel of Chimes	65	66
FE Complex	64	65
GVEA	62	63

Source: CH2MHill Noise Analysis Report, March 2005

FHWA does not require, and will not pay for, noise abatement when there is no project being developed. Under this alternative, noise would continue to increase without abatement.

4.9.3 Build Alternative

In comparison to existing peak hour conditions, the Build Alternative would provide no change at three locations and noise increases at 13 locations. The greatest noise increase under the Build Alternative would be 5 dBA at The Diner (M5). Noise levels would approach or exceed abatement criteria between the Hayr House and Hair Body & Sol (M7), Hayr House Front (R7a), Hayr House Back (R7b) and the Corner 101 Apartments (M14) receptors. The following table

compare the future peak hour noise conditions for the Preferred Alternative and No Build Alternative. Cells in bold indicate noise impacts.

Table 17: No Build and Build Alternative Projected Noise Levels at Peak Hour Traffic

Future Peak Hour Noise Levels in dBA Category A Receptors (NAC is 50 dBA)			
<i>Site</i>	<i>Existing</i>	<i>No Build (2035)</i>	<i>Build (2035)</i>
Immaculate Conception	41	43	42

Category B Receptors (NAC is 65 dBA)			
FCVB	60	62	60
Chena River North	61	63	62
Courtney Apartments	59	60	62
Between Hayr House and Hair Body & Sol	65	66	68
Hayr House Front	66	67	69
Hayr House Back	61	62	65
Minnie Street B&B	56	58	59
Monroe Playground	58	59	60
White House	56	57	59
Corner 101	67	68	70

Category C Receptors (NAC is 70 dBA)			
The Diner	63	64	68
Chapel of Chimes	65	66	67
FE Complex	64	65	65
GVEA	62	63	62

Source: CH2MHill Noise Analysis Report, March 2005

By diverting southbound traffic away from the Immaculate Conception Church and the FCVB, traffic noise levels would improve over the future conditions for the No Build alternative. Noise level increases for the Preferred Alternative do not substantially exceed existing noise levels. Noise levels approach or exceed NAC at three locations.

When noise levels approach or exceed NAC, noise abatement must be considered. Noise barriers were analyzed to determine if noise levels could be reduced at least 5 dBA, and whether they would be cost effective. DOT&PF currently considers \$25,000 per benefited residence a reasonable noise barrier cost. In the event that barrier costs exceed \$25,000 per benefited residence, the cost will be considered reasonable only if it can be demonstrated that a “severe”

noise impact will occur. In order to satisfy this criteria, it must be shown that either a predicted design year increase of 15 dBA over existing noise levels will occur, or that predicted Build noise levels will exceed predicted No Build noise levels by at least 5 dBA (DOT&PF Noise Abatement Policy 6(A)). Neither of these conditions would occur with the proposed project.

Parking, driveway access, and building layout at Corner 101 Apartments do not allow for a continuous noise barrier that would provide a minimum 5 dBA noise reduction. A noise barrier at the Hayr House on the corner of Slater Street and Illinois would provide a 5 dBA noise reduction. The barrier would be six feet in height and 180 feet long and follow the Right of Way line along Illinois Street and wraps around along Slater Street. However, the barrier would cost \$27,000 per benefited residence. This cost is not considered reasonable in accordance with DOT&PF's policy.

Table 18: Barrier Design: Values in dBA

Receiver Location	Without Mitigation	With Mitigation	Noise Reduction
Hayr House Front	69	64	5
Hayr House Back	65	60	5

Source: CH2MHill Noise Analysis Report, March 2005

During the construction phase of this project, noise from construction activities would add to noise levels in the immediate project area. Construction activities would generate noise ranging from 82 to 86 dBA at a distance of 100 feet (CH2MHill Noise Analysis Report, March 2005). Construction noise impacts would be temporary. No FHWA or DOT&PF criteria exist for construction noise impacts.

4.9.4 Mitigation

No mitigation is required.

4.10 FISH AND WILDLIFE

4.10.1 Existing Environment

The Alaska Department of Fish and Game (ADF&G) online fish database lists the presence of King Salmon at the junction of Noyes Slough and the Chena River. Both water bodies are catalogued anadromous waters and require an Essential Fish Habitat Assessment and consultation

with the National Oceanic and Atmospheric Administration (NOAA) and the National Marine Fisheries Service (NMFS).

ADF&G, Division of Sport Fish, states that along with king and chum salmon, the Chena River supports populations of:

- Arctic grayling
- Round whitefish
- Humpback whitefish
- Least cisco
- Northern Pike
- Burbot
- Longnose suckers
- Slimy sculpins
- Lake chubs
- Arctic lamprey
- Sheefish

(Source: ADF&G Official Website)

The project corridor is well within the urban boundaries of Fairbanks. The project corridor's commercial/industrial/residential environment does not support a variety of wildlife resources. There are no eagles' nests in the project corridor. Chena River bank-side wildlife habitat is severely limited. The in-stream habitat for the section of Noyes Slough impacted by this project has been compromised by previous commercial activities. This portion of the Slough does temporarily contain migratory waterfowl, including mallards, pintails, and green winged teals. There is little or no nesting habitat along the portion of the Slough within the project corridor (Personal communication, Larry Bright, USFWS, February 10, 2005).

4.10.2 No Build Alternative

This alternative would have no impact on fish and wildlife.

4.10.3 Build Alternative

ADF&G has no objection to road upgrades/improvements (Personal communication, Nancy Ihlenfeldt, ADF&G, January 2003). A Fish Habitat Permit (A.S. 16.05.870) will be required for this project. The Preferred Alternative would not impact wildlife resources (Personal Communication with USFWS and ADF&G, February 10, 2005). The project provides an opportunity to benefit in-stream habitats by preventing or treating sediment and pollutant runoff into streams.

4.10.4 Mitigation

No mitigation is required.

4.11 WATER BODY INVOLVEMENT

4.11.1 Existing Environment

Noyes Slough and the Chena River exist within the project corridor. The Chena River is listed as navigable by the U.S. Coast Guard under Section 9 of the Rivers and Harbors Act and by the U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbors Act. Bridge construction would require permits from both agencies.

The Chena River provides year-round recreational use. In the summer, boaters and kayakers travel the Chena under the Cushman Bridge. During the winter, dog-sled teams, skiers, snow machines, and vehicles use the frozen Chena River and Noyes Slough. Neither water body is used by the City of Fairbanks as a water supply.

The Chena River supports various anadromous and resident fish. Noyes Slough habitat supports seasonal resident fish populations. Specific fish habitat information is discussed in Section 4.10 Fish and Wildlife.

4.11.2 No Build Alternative

This alternative would not impact Noyes Slough or the Chena River.

4.11.3 Build Alternative

Option 1, the “haunch,” bridges provide the greatest navigational clearance. The following table depicts approximate navigation windows for each bridge.

Table 19: Chena River Navigation Windows

Bridge	Navigation Width x Height	Total Available Width
<i>Option 1: “Haunch”</i>		
Barnette Street	70’ x 11.5’	95’
Cushman Street	100’ x 10.5’	120’

Bridge	Navigation Width x Height	Total Available Width
<i>Option 2: Bulb-Tee</i>		
Barnette Street	75' x 11.5'	75'
Cushman Street	85' x 10.5'	85'

Chena River bank riprap would be about 88 feet wide for the two Option 1 “haunch” bridges at Cushman and Barnette. Bank riprap would be about 95 feet wide for both Option 3 bulb-tee bridges at Cushman and Barnette. Riprap would extend about 20 feet on each side of both bridges for Options 1 and 3. The two bridges would be approximately 290-feet apart under either option.

Approximate areas of riprap placed instream for each bridge are as follows:

Option 1: “Haunch”

Barnette Bridge: 0.2 acres

Cushman Bridge: 0.2 acres

Option 3: Bulb-Tee

Barnette Bridge: 0.1 acres

Cushman Bridge: 0.1 acres

4.11.4 Mitigation

The Department would coordinate landscape design options and potential riparian habitat restoration options with local government bodies to make sure they are compatible with community goals along the riverfront, including willow cutting placement at the top of bank riprap. DOT&PF would establish water body mitigation measures during the construction design phase of this project. Construction of the riverfront pathway between the two Chena River bridges would remove an existing barrier, which would restore the potential for additional riparian habitat along the north bank of the Chena River between the two bridges.

4.12 WATER QUALITY

4.12.1 Existing Environment

Both Noyes Slough and the Chena River are listed Category 5 waters by the Alaska Department of Environmental Conservation (ADEC). Waters on this list are impaired by pollutant(s) for one or more designated uses and require a Total Maximum Daily Load (TMDL). These are waters not attaining Alaska's Water Quality Standards (18 AAC 70) and Clean Water Act Section 303(d). According to "Alaska's Final 2002/2003 Integrated Water Quality Monitoring and Assessment Report dated December 2003" the U.S. Environmental Protection Agency approved Alaska's Category 5 list of impaired waters as contained in the report.

The report contained the following information about the Chena River:

- The Chena River has been on the Section 303(d) list since 1990 for turbidity and sediment. A State Division of Mining memorandum dated March 5, 1996 provided information indicating that turbidity and sedimentation was the result of a one-time placer mining settling pond failure that was repaired and therefore recommended dropping turbidity and sediment parameters from placer mining sources.
- Best professional judgment from ADEC staff in Fairbanks was to list the water body for petroleum products as well.
- The river flows directly through the City of Fairbanks and past several known areas of groundwater contamination.
- The area has permeable soils and shallow groundwater that readily interacts with surface water.
- The following water quality standards are listed--petroleum hydrocarbons, oil and grease, sediment.
- The report lists the pollutant source as urban runoff.

Noyes Slough has been on the Section 303(d) list for non-attainment of the Sediment, Petroleum Hydrocarbons, Oil & Grease and Residues standards for sediment, petroleum product and debris since 1994. Numerous water quality violations have been reported. These violations are a result of debris dumped into the slough. Urban run-off is also a problem. Snow dumps from the removal of snow from city streets and parking lots located adjacent to the slough contain oil,

grease, anti-freeze, and salts. Melting snow carries these pollutants into the water body. The report lists urban runoff as the pollutant source.

Stormwater that travels through existing drainage facilities in the project corridor eventually enters the Chena River and Noyes Slough untreated. Curb and gutter drainage is only present from the Cushman Street Bridge to Phillips Field Road on the east side of Illinois Street and to Terminal Street on the west side of Illinois. From Phillips Field Road north, there are no ditches to collect stormwater. Most of the stormwater in this area percolates into the ground.

EPA Region 10 has prepared a Draft Municipal Separate Storm Sewer System (MS4) for the City of Fairbanks, City of North Pole, University of Alaska-Fairbanks, and DOT&PF-Northern Region Office. Permit requirements are based on Section 402(p) of the Clean Water Act and EPA's "Phase II" regulations for municipal storm water discharges. This permit would impose operator regulations relevant to this project in conjunction with the existing Construction General Permit (CGP). The draft MS4 permit may not be in effect until April 2006.

4.12.2 No Build Alternative

This alternative would not improve existing water quality, stormwater system deficiencies, or runoff. This alternative would create a negative impact for water quality.

4.12.3 Build Alternative

Stormwater would be channeled from 7th Avenue north to storm ceptors located on the southwest corner of the 1st Avenue/Barnette Street intersection. Runoff to the south of Church Street would be directed to ceptors located in the triangle between Barnette and Cushman Streets and filtered before discharging into the Chena. DOT&PF may include stormwater tie-ins to the City of Fairbanks stormwater system for drainage between Church Street and Minnie Street. Stormwater to the north of Minnie Street would be channeled to storm ceptors to the south of Noyes Slough for filtration before discharging outflow into Noyes Slough.

Motorized vehicles may drop contaminants into the Chena River. DOT&PF would develop bridge runoff control designs.

The proposed pathway under the Chena River bridges would be seasonally underwater due to water level fluctuations. DOT&PF recognizes this would be a maintenance issue.

4.12.4 Mitigation

The Department would write an Erosion and Sediment Control Plan (ESCP) to be reviewed by ADEC and incorporated into the construction document for this project. The ESCP would describe best management practices (BMP's) that would be required during construction. The selected contractor would use the ESCP as guidance in preparing the Storm Water Pollution Prevention Plan (SWPPP) for approval by the Department. The SWPPP would present the measures the Contractor would use to prevent sediment from negatively affecting water quality, and when the measure would be placed. The SWPPP would establish when and how the measure would be displayed, implemented, and managed. The SWPPP would be in accordance with the NPDES Construction General Permit. The Department would make efforts to comply with the impending City of Fairbanks Storm Water Management Program and all other MS4 requirements through intensive BMP's.

DOT&PF would implement treatment facilities in addition to the planned stormwater ceptors. If DOT&PF encounters contamination during work in Noyes Slough, contaminated soils would be dredged and disposed of according to ADEC standards.

4.13 FLOODPLAIN

4.13.1 Existing Environment

The project corridor is within the historical Chena River floodplain and crosses through the regulatory floodway (FIRM Map 0250090182G). The Federal Emergency Management Agency (FEMA) labels the Chena River and Noyes Slough Zone AE. Zone AE corresponds to the one percent annual chance floodplains determined by the FEMA Flood Insurance Study. The south and north portions of the project corridor are located in Zone X. FEMA describes Zone X as corresponding to areas outside the 1-percent annual chance floodplain, areas of 1-percent annual chance sheet flow flooding where average depths are less than one foot, areas of one-percent annual chance stream flooding where the contributing drainage area is less than one square mile, or areas protected from the one-percent annual chance flood by levees (FEMA. www.fema.gov/, Feb 2005).

The Chena River Lakes Flood Control Project, governed by the USACE, regulates flooding in the area with a series of levees and dams at Chena River Mile 45 to the east of Fairbanks. This flood

control project minimizes flood risks in the project corridor by diverting high water to a floodplain along the Tanana River.

4.13.2 No Build Alternative

This alternative would have no impact on the floodplain.

4.13.3 Build Alternative

The Preferred Alternative does include work within the regulatory floodway. Building the new Barnette Street Bridge, and reconstructing the Cushman Street Bridge, would have a No Rise Effect on the floodway. The Preferred Alternative would not increase flood chances, nor would it negatively impact the floodway or floodplain. A floodplain permit is required from the FNSB.

4.13.4 Mitigation

No mitigation is required.

4.14 PERMITS AND AUTHORIZATIONS

4.14.1 Existing Environment

There are currently no permits in effect for the project area.

4.14.2 No Build Alternative

This alternative would not require any permits or authorizations

4.14.3 Build Alternative

The Preferred Alternative would require the following permits:

- U.S. Army Corps of Engineers (USACE) permit for excavating or placing fill in the waters of the United States under Section 404 of the Clean Water Act, and for dredging, placing structures, or other work in or affecting navigable waters under Section 10 of the Rivers and Harbors Act
- Section 9 Permit for Bridges Over Navigable Waters, U.S. Coast Guard (USCG), for construction of bridges over navigable waters
- FNSB Floodplain Permit
- Title 41 Fish Habitat Permit, AK Department of Natural Resources (DNR), for construction in specified anadromous streams

- National Pollution Discharge Elimination System Permit (NPDES), U.S. Environmental Protection Agency (EPA), for point-source discharge of wastewater or storm water into the waters of the United States
- 401 Certificate of Reasonable Assurance, DNR, for activities requiring a permit under the Clean Water Act

4.14.4 Mitigation

USACE and USCG are cooperating agencies for this project. Mitigation measures would be coordinated with permit issuing agencies.

4.15 CONSTRUCTION

4.15.1 Existing Environment

There are currently no construction projects in progress within the project area.

4.15.2 No Build Alternative

This alternative would not result in construction impacts.

4.15.3 Build Alternative

The Preferred Alternative would cause temporary impacts during construction. The construction of this alternative would have minor impacts to the public. Increased travel time and short-term delays are likely during the road and bridge construction. Detours may be required.

Additionally, retail-specific impacts for businesses not required to relocate may result in the loss of customers during construction.

Temporary socioeconomic impacts would occur during construction. This multi-million dollar project would create jobs in the construction industry and secondary jobs in a variety of support industries such as freight, material supply, food, and lodging.

Should construction unearth unknown cultural resources, the contractor must cease construction activities in the immediate area and notify DOT&PF's Project Engineer and Environmental Section, who will contact SHPO. Work would not resume until appropriate measure to avoid or minimize the resources have been implemented. Appropriate measures would be developed and documented through Section 106 consultation with SHPO and FHWA.

Potential sources of dust during construction are exposed soils and materials during road and bridge construction and the transportation of structural fill to the project site. Watering during construction would control airborne dust and sediment. The project would most likely involve a fixed asphalt plant that would operate under the terms of its own air quality permit. Construction would take place during the summer months where weather conditions would not lead to a CO exceedance for the Fairbanks maintenance area.

A temporary increase in noise is expected during construction from heavy equipment operation.

There are many materials sources available to the contractor in the immediate project area, each with a DNR Division of Land and Water Management operation and reclamation plan.

4.15.4 Mitigation

The project would be constructed in phases. The contractor would, according to construction contract specification, control construction-related dust by watering or other approved means. Construction activities would be limited to daytime hours whenever possible. The contractor would be bound by contract specification to develop a Traffic Control Plan (TCP) and receive approval from the Department for this plan. The TCP would address traffic detours, altered traffic controls, and access to local business affected by construction.

The Department would monitor vibrations at Immaculate Conception Church during construction. Lexan would be offered for placement over the windows of the church during construction to protect the church from the possibility of construction debris damaging the windows. To minimize construction noise, construction equipment would not operate without muffled exhaust systems.

5 SUMMARY

5.1 IMPACTS

Resource impact categories affected by implementing the Preferred Alternative include: Right of Way; Social; Economic; Local Land Use and Transportation Plan; Water Quality; Noise; and, Construction. The Preferred Alternative would create a beneficial impact for the Social, Economic, and Local Land Use impact categories. There would be No Adverse Effect on Historic Properties. The project would impact 57 properties and require approximately 255,000

ft² of Right of Way. Water Quality for the Chena River and Noyes Slough may be impacted during bridge construction. Noise impacts would occur at the Hayr Residence and Corner 101 Apartments. All impacts are less than significant.

5.2 MITIGATION AND CONTRACT CONDITIONS

Right of Way

- Right of Way impacts would be mitigated through cost-to-cure payments, zoning variances for affected parking areas, and joining commonly owned contiguous lots to meet current zoning requirements.
- Relocation resources are available to all residential and business relocates without discrimination.
- The DOT&PF acquisition and relocation program would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Social

- The proportion of low-income residents in two affected apartment complexes is higher than the proportion in the project area.
- Many of the units have been patched rather than repaired and are in below-average condition. Alternate housing is expected to be at a higher monthly rate. The available housing market in this area is quite active and as a result varies in cost during the year. There are many realtors who would be able to help handle the need for replacement housing at the time of acquisition.
- The Department can assure that each relocatee will be offered decent, safe and sanitary housing within their financial means, or attainable with Last Resort Housing. A list of available and comparable replacement housing will be furnished to the relocatees. Within a reasonable period of time prior to displacement, a comparable replacement unit will be made available for the displacees.

Last Resort Housing is anticipated due to the current monthly rents paid versus what the market is anticipated to require. There is adequate housing available.

Historic Preservation

The Preferred Alternative would have No Adverse Effect on Historic Properties.

- Contract specifications include provisions for discovery of unknown archeological, historical, or cultural remains.
- The Contractor is required to stop construction in the area and notify the DOT&PF Project Engineer.
- Signs would be installed indicating and interpreting the Illinois Street Historic District.

Hazardous Waste

- If hazardous waste is encountered during construction, the Contractor would immediately contact the DOT&PF Project Engineer for mitigation and notification procedures.

Water Quality, Habitat, and Navigation

- BMP's would be used during construction to prevent sediment runoff into the Chena River and Noyes Slough.
- In accordance with NPDES and the City of Fairbanks Draft MS4 permit, the Contractor would prepare a Storm Water Pollution Prevention Plan (SWPPP) specific to the project area and subject to approval by DOT&PF. The Department would prepare an Erosion and Sediment Control Plan (ESCP) for the Contractor to use while preparing the SWPPP.
- The Contractor would not place fill or dredge material, nor operate equipment, within or on the banks of a stream except as outlined in the Fish Habitat Permit issued for this project.
- The Title 41 Habitat permit would establish a set of performance standards to ensure the project has minimal impact on the resource, in coordination with NOAA Fisheries.

Noise

- The Department would prepare an engineer's report for vibration associated with bridge construction at the Immaculate Conception Church.
- The Department would monitor vibrations at Immaculate Conception Church during construction. Lexan would be offered for placement over the windows of the church for protection during construction.
- DOT&PF would develop noise abatement designs according to the Department Noise Abatement Policy.

Air Quality

- BMP's, generally watering, would be used during construction to control dust.

Construction

- The Contractor would not use land from any park, recreation area, or historical site inside or outside the project limits for excess fill disposal, staging activities, equipment or material storage, or for any other purposes unless permitted.
- The Contractor would not excavate or use any fill material at any site known or suspected of containing hazardous materials or fuels without an approved permit.
- Upon completion of construction work, the Contractor would clean up all trash, rubbish, excess materials and equipment on the project site.

5.3 PERMITS REQUIRED

- U.S. Army Corps of Engineers (USACE) permit for excavating or placing fill in the waters of the United States under Section 404 of the Clean Water Act, and for dredging, placing structures, or other work in or affecting navigable waters under Section 10 of the Rivers and Harbors Act
- FNSB Floodplain Permit
- Title 41 Fish Habitat Permit, AK Department of Natural Resources (DNR), for construction in specified anadromous streams
- National Pollution Discharge Elimination System Permit (NPDES), U.S. Environmental Protection Agency (EPA), for point-source discharge of wastewater or storm water into the waters of the United States
- 401 Certificate of Reasonable Assurance, DNR, for activities requiring a permit under the Clean Water Act
- Section 9 Permit for Bridges Over Navigable Waters, U.S. Coast Guard (USCG), for construction of bridges over navigable waters

5.4 PRELIMINARY FINDINGS

This project would cause less than significant impacts.

6 CONSULTATION AND COORDINATION

In an effort to assure agency coordination, the Department met and discussed the project with:

- Christy Everett, Field Office Manager, U.S. Army Corps of Engineers

- Larry Bright, USF&WS
- Nancy Ihlenfeldt, DNR Office of Habitat Management and Permitting
- The Air Quality Conformity Group
- Judith Bittner, SHPO

FHWA met and discussed the project with:

- James Helfinstine, U.S. Coast Guard

7 PUBLIC COMMENT

In accordance with the NEPA process, the public involvement effort for this EA offered the following opportunities for public comment:

- Open House Public Meeting, September 14, 2004
- Public Meeting, Historic Resources, February 4, 2004
- Open House, Monroe High School, December 9, 2002
- Open House, Monroe High School, July 10, 2002

Public comment has been extensive during the life of this project. Public comments received during public meetings/open houses and written comments may be grouped into five main categories:

Pedestrian and Bike Facilities

Citizens are concerned that pedestrian facilities are provided along Illinois Street from downtown Fairbanks to College Road, bike access is provided along the bridges, and existing bike paths be connected. Citizens questioned whether or not the riverfront bike path would be going under the bridges.

Response: Pedestrian facilities would be provided from Downtown to College Road along Illinois Street.

Safety & Traffic Capacity Concerns

Safety and traffic capacity comments range from concerns that traffic would continue to back up from the Johansen Expressway on-ramp to the Illinois/College intersection to the need for a

traffic signal at Terminal/Doyon Place. Numerous comments concern the speed of vehicle traffic on Minnie Street. Improving traffic delays at the Illinois/College intersection is a concern.

Response: The Preferred Alternative includes signal installation at the Cushman/Doyon/Terminal intersection. Speeds on Minnie Street would be mitigated by design speed considerations. An additional northbound left turn lane at College Road would be constructed to reduce delay at the Illinois/College Road intersection.

Historic District & Individual Structure Impacts

Comments in this category concern structures in the Illinois Street Historic District and individual ROW structure impacts throughout the corridor.

Response: There would be no adverse effect on historic properties in the District. Other property owners would be compensated through the acquisition and relocation program, which would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Drainage

Comments address poor drainage at the Illinois/Minnie street intersection area and Slater Street.

Response: Improved drainage would be attained throughout the project corridor.

Social Concerns

Citizens expressed concern about the use of the triangle area between the Cushman and Barnette Street Bridges. Citizens proposed multiple uses for developing this area and raised concerns about maintaining public safety. Comments also concerned the placement of utilities after construction.

Response: Public safety would be a primary factor in choosing a development alternative. Local government and volunteer entities would be encouraged to develop and monitor the triangle.